

DSC650-T301 Big Data (2235-1)

5/24/2023

Joshua Greenert

```
In [1]: # Using section 8.4 in Deep Learning with Python as a guide, implement a variational autoencoder
# and save a grid of 15 x 15 digits to the results/vae directory. If you would rather work with
# you can use the CelebFaces Attributes Dataset instead.
import tensorflow as tf
from tensorflow.keras.datasets import mnist
from tensorflow.keras.models import Model
from tensorflow.keras.layers import Input, Dense, Lambda
from tensorflow.keras.losses import binary_crossentropy
import numpy as np
import os

# Set random seed for reproducibility
np.random.seed(42)
tf.random.set_seed(42)

# Create a directory to save the results
result_dir = "results/vae"
os.makedirs(result_dir, exist_ok=True)

# Load the MNIST dataset
(x_train, _), (x_test, _) = mnist.load_data()
```

```
In [2]: # Reshape and normalize the training/test data
x_train = x_train.astype('float32') / 255.
x_test = x_test.astype('float32') / 255.

x_train = np.reshape(x_train, (-1, 784))
x_test = np.reshape(x_test, (-1, 784))
```

```
In [3]: # Define the VAE architecture
input_dim = 784
latent_dim = 20
intermediate_dim = 256

inputs = Input(shape=(input_dim,))
h = Dense(intermediate_dim, activation='relu')(inputs)
z_mean = Dense(latent_dim)(h)
z_log_var = Dense(latent_dim, activation='softplus')(h)
```

```
In [4]: # Reparameterization trick
class Sampling(Lambda):
    def __init__(self, name='sampling'):
        super(Sampling, self).__init__(self.sampling, name=name)

    def sampling(self, args):
        z_mean, z_log_var = args
        batch = tf.shape(z_mean)[0]
        dim = tf.shape(z_mean)[1]
        epsilon = tf.random.normal(shape=(batch, dim))
        return z_mean + tf.exp(0.5 * z_log_var) * epsilon
```

```
In [8]: class VAE(Model):
```

```

def __init__(self, encoder, decoder, **kwargs):
    super(VAE, self).__init__(**kwargs)
    self.encoder = encoder
    self.decoder = decoder

def train_step(self, data):
    if isinstance(data, tuple):
        data = data[0]
    with tf.GradientTape() as tape:
        z_mean, z_log_var, z = self.encoder(data)
        reconstruction = self.decoder(z)
        reconstruction_loss = tf.reduce_mean(
            binary_crossentropy(data, reconstruction)
        )
        reconstruction_loss *= input_dim
        kl_loss = 1 + z_log_var - tf.square(z_mean) - tf.exp(z_log_var)
        kl_loss = tf.reduce_mean(kl_loss)
        kl_loss *= -0.5
        total_loss = reconstruction_loss + kl_loss
    grads = tape.gradient(total_loss, self.trainable_weights)
    self.optimizer.apply_gradients(zip(grads, self.trainable_weights))
    return {
        "loss": total_loss,
        "reconstruction_loss": reconstruction_loss,
        "kl_loss": kl_loss,
    }

```

```

In [9]: # Use the sampling method and set Dense options
# Create encoder model
encoder_inputs = Input(shape=(input_dim,), name="encoder_input")
x = Dense(intermediate_dim, activation="relu")(encoder_inputs)
z_mean = Dense(latent_dim, name="z_mean")(x)
z_log_var = Dense(latent_dim, name="z_log_var")(x)
z = Sampling()([z_mean, z_log_var])
encoder = Model(encoder_inputs, [z_mean, z_log_var, z], name="encoder")

# Create decoder model
latent_inputs = Input(shape=(latent_dim,), name="z_sampling")
x = Dense(intermediate_dim, activation="relu")(latent_inputs)
outputs = Dense(input_dim, activation="sigmoid")(x)
decoder = Model(latent_inputs, outputs, name="decoder")

```

```

In [6]: # Define the custom loss function
# def vae_loss(x, x_decoded_mean):
#     xent_loss = tf.keras.backend.mean(binary_crossentropy(x, x_decoded_mean), axis=-1)
#     kl_loss = -0.5 * tf.keras.backend.mean(1 + z_log_var - tf.square(z_mean) - tf.exp(
#     return xent_loss + kl_loss

```

```

In [11]: # Combine them to create VAE model
vae = VAE(encoder, decoder)
vae.compile(optimizer='adam')

# Train the VAE
for epoch in range(20):
    for x_batch, _ in train_dataset:
        losses = vae.train_step(x_batch)
        print(f"Losses: {losses}")

    print(f"Epoch {epoch+1}/{20} - Training complete")

```

```

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=535.2921>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=535.19727>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=0.0948622>}

```

```

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=520.564>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=520.3951>, 'kl_loss': <tf.Tensor: shape=()

```

```
((), dtype=float32, numpy=0.16893403>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=502.20978>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=501.90298>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=0.30680624>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=482.4636>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=481.96893>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=0.49465108>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=455.75015>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=454.94907>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=0.8010951>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=425.55276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=424.06448>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=1.4882925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=394.28>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=392.08878>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=2.1912317>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=363.84848>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=360.9933>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=2.8551984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=333.29095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=329.80267>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.488274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=346.46222>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=334.5006>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=11.961606>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=325.57617>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=313.5319>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=12.044294>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=283.44028>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=276.59885>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=6.8414307>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=264.49908>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=258.1343>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=6.364787>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=264.84793>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=258.06067>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=6.787249>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=251.81381>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=244.28667>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=7.527153>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=269.95032>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=259.79517>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=10.155167>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=251.31401>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=243.06523>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=8.248785>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=244.7633>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=237.17351>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=7.589804>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=243.53555>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=236.65855>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=6.8769927>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=236.1158>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=228.9589>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=7.1569076>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=230.67085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=223.5987>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=7.072159>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=242.09715>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=236.33905>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.7581024>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=238.53314>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=232.44116>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=6.091983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=222.4363>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=217.61813>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=7.1569076>}
```

```
e=(), dtype=float32, numpy=4.818167>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=219.70859>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=215.11063>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5979548>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=215.79092>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=211.11794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6729903>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=225.26341>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=220.89311>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3702965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=222.53734>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=218.19742>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.339925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=237.84717>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=232.9502>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8969793>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=223.89088>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=219.96214>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9287457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=211.3158>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=207.0413>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2744894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=216.62976>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=212.05342>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.576336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=214.1903>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=209.84358>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3467245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=215.01653>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=210.77263>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.243894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=211.20364>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=207.34358>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8600662>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=222.77867>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=218.25002>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5286546>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=235.07217>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=230.203>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.869171>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=231.7257>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=228.38763>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3380532>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=213.1997>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=209.57101>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6286979>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=212.9211>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=208.9727>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.948396>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=218.45586>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=214.67091>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7849414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=220.98038>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=217.23044>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.749946>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=219.23233>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=214.99231>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2400217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=210.81503>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=207.29434>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5206833>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=211.70412>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=208.46552>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2385955>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=201.31256>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=197.86899>, 'kl_loss': <tf.Tensor: sha
```

```
pe=(), dtype=float32, numpy=3.4435692>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=212.1974>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=208.52533>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6720777>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=220.5631>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=216.75697>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8061223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=206.78233>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=202.70503>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.077298>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=201.05386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=197.08217>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9716926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=207.90341>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=204.81137>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0920346>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=196.7135>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=193.69534>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.018155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=193.51366>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=190.8846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=2.6290636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=196.58925>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=193.2791>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3101563>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=199.22803>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=195.35828>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8697524>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=192.21283>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=189.09373>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.119096>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=195.78506>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=192.43417>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3508968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=187.01839>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=183.86601>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1523786>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=183.43013>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=179.57288>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8572547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=196.38312>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=192.73605>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6470704>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=198.31557>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=194.36047>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.955092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=212.8036>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=208.54991>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2536917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=208.62727>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=204.2715>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.355772>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=185.85358>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=182.12532>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.728257>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=194.23032>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=190.95425>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2760625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=190.14877>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=186.67903>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4697342>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=200.86592>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=196.00743>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8584843>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=200.88585>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=196.93692>, 'kl_loss': <tf.Tensor: sha
```

```
pe=(), dtype=float32, numpy=3.9489295>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=189.07736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=185.74713>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3302238>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=190.0333>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=187.20987>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=2.8234239>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=186.62529>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=183.80338>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=2.82191>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=188.44562>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=185.8891>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=2.556524>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=183.97267>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=181.04604>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=2.9266376>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=196.3811>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=193.24774>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1333556>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=194.0888>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=190.72885>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3599563>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=190.25102>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=186.8946>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3564117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=186.13223>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=182.88159>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2506454>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=184.01576>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=180.82822>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1875424>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=181.11469>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=177.44843>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.666256>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=186.86002>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=182.38835>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4716706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=201.56026>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=196.42216>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.1380897>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=185.50613>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=181.6593>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8468251>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=179.15012>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=175.63977>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5103402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=176.89195>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=173.82175>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0702088>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=173.52779>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=169.82587>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7019145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=173.56036>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=169.63226>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9281018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=174.61185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=171.07071>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.54114>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=168.39897>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=164.79832>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6006463>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=165.63724>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=161.9409>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6963296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=166.59383>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=162.86934>, 'kl_loss': <tf.Tensor: sha
```

```
pe=(), dtype=float32, numpy=3.7244866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=166.47081>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=162.7196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7512097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=163.34041>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=159.46796>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8724453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=164.66728>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=160.68007>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9872086>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=166.96288>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=162.79225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.17063>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=164.0299>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=160.07452>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.955379>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=175.2776>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=171.47299>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.804605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=176.95042>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=173.57907>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.371355>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=177.77293>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=174.03046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.742475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=180.6438>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=177.25891>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3848808>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=172.93687>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=169.53642>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4004517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=166.5057>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=163.11371>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.391993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=173.9124>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=169.66924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2431707>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=172.5225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=168.28731>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2352037>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=176.48648>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=173.10638>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3800895>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=167.03175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=163.39117>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6405792>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=165.9489>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=161.93082>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.018089>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=165.23639>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=161.81676>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4196396>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=161.52345>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=158.47728>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0461788>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=167.01736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=163.79767>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2197013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=175.61526>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=171.963>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.652269>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=180.24106>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=175.82303>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.418029>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=170.75385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=166.47307>, 'kl_loss': <tf.Tensor: sha
```

```
pe=(), dtype=float32, numpy=4.280784>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=164.31726>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=160.56548>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.751782>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=161.47049>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=158.1587>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3117766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=170.25255>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=166.63678>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.615764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=171.12543>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=167.65002>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4753964>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=151.98796>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=147.80978>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1781836>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=151.09993>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=147.07956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.020377>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=159.43437>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=155.89964>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.534726>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=151.31671>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=147.39503>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.921672>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=153.00111>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=149.39929>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6018252>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=153.37234>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=149.4359>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9364522>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=159.82982>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=156.05441>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.775404>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=162.35085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=158.82205>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5287938>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=152.20291>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=147.45158>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7513304>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=158.19489>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=153.33176>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.863131>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=152.97774>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=148.15953>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8182>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=150.73396>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=146.40685>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3271217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=142.86847>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=138.61005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.258418>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=151.17744>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=147.1744>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0030556>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=148.11792>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=144.20384>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9140728>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=163.52303>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=160.27164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.251384>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=147.24896>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=143.16733>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.081641>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=153.0244>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=149.0067>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9140728>}
```



```
=(), dtype=float32, numpy=4.017694>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=164.32703>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=160.33615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9908772>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=159.0946>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=155.21863>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8759742>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=153.46964>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=149.97826>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4913795>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=163.84673>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=160.79222>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0545087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=145.59375>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=141.94356>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6501992>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=137.81157>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=134.06331>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.748262>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=144.84224>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=140.65337>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1888723>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=139.63066>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=135.29482>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3358455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=140.94058>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=136.4567>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.483888>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=140.27225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=136.14618>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1260705>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=143.67738>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=139.51355>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.163829>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=157.37921>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=153.44383>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9353862>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=146.9631>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=142.96516>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9979386>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=145.91698>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=141.86186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0551124>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=141.6429>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=137.87036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7725322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=144.97852>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=141.24028>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.738237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=155.18788>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=150.60245>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.585431>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=153.75531>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=149.01543>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7398806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=149.74771>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=144.89188>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.855838>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=139.97028>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=135.26572>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.70456>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=147.47224>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=142.97424>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4980063>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=155.55359>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=151.43173>, 'kl_loss': <tf.Tensor: sha
```

```
pe=(), dtype=float32, numpy=4.1218634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=156.14859>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=152.22224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.926344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=148.40388>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=144.40968>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.994207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=144.15456>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=140.46263>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6919188>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=137.82808>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=133.63968>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.188401>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=145.03114>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=140.92883>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1023107>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=138.90904>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=134.3722>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5368466>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=137.07841>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=132.87302>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2054014>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=143.05772>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=138.94472>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.113002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=137.7021>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=133.84082>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8612761>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=140.77231>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=136.85518>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9171352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=149.3506>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=145.25742>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.093179>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=144.77853>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=140.35324>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.425292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=140.22372>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=136.20721>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0165105>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=132.70847>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=129.09662>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6118531>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=147.5622>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=142.21288>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.349321>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=139.6601>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=134.3685>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.2915916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=156.1691>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=152.59436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5747375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=149.201>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=145.37636>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.824643>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=139.50099>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=135.67023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8307662>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=141.34409>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=137.591>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.75308>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=143.68115>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=139.62112>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0600214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=147.5404>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=142.8725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.75308>}
```

```
=(), dtype=float32, numpy=4.6679077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=137.69553>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=133.18407>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.511462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=144.82944>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=140.41919>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4102473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=144.95952>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=140.41748>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5420394>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=132.61504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=128.2967>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3183336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=138.28638>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=133.89069>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.395696>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=134.60643>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.41634>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1900964>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=141.88367>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=138.42154>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4621258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=146.92357>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=143.27129>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6522777>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=144.27058>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=140.29832>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9722524>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=131.02908>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.52925>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4998307>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.88238>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.13642>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.745959>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=134.60031>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.43033>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.16998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=132.65288>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=128.32695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.325932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=141.7829>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=137.6028>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1801023>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=139.73007>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=135.29993>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.430149>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=127.212555>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.869316>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3432364>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.19861>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.36981>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8287926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=128.28471>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=124.113846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.170864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=136.78572>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=132.8414>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9443142>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=144.28339>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=139.54848>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7349043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.28279>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=124.93709>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.345697>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.60609>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.08838>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3432364>}
```

```
pe=(), dtype=float32, numpy=4.517707>},
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=134.57463>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.31923>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2553945>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.55208>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.850815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7012596>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.77327>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=127.25298>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.520286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=129.04378>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=124.53703>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5067506>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.994606>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.63038>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3642282>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=127.1031>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.15158>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9515235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=129.96048>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.01645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9440339>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=132.28993>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=128.73997>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.549954>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=133.12204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=128.74481>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.377234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=128.77106>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.97436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.796706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.22693>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.021095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.205835>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=139.64684>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=135.36674>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.280089>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=143.26118>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=138.87196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3892274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=136.94443>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=132.6737>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2707186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=138.84987>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=134.92134>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.928531>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.54585>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.43322>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.112636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=129.9524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.06396>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.888443>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=134.22473>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.49115>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.733581>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=127.32368>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.273056>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.0506177>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=124.6728>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.72001>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.95279>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=135.3563>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.58885>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.767446>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=132.30632>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=127.64567>, 'kl_loss': <tf.Tensor: sha
```

```
pe=(), dtype=float32, numpy=4.660651>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=134.11304>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=129.60713>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.505913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=128.74225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=124.27486>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.467393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.3869>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.134476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.252423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=135.08858>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.78114>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3074408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=143.06499>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=138.9095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1554847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=138.324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=134.7519>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5721002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=135.02686>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.70764>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3192186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=128.88533>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.93119>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9541407>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.94694>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.39334>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5535975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.08858>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.271255>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8173206>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.77423>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.12338>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6508458>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=127.15427>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.55713>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.597139>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=132.06178>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=128.43681>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6249702>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.25154>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.204475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0470695>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=124.810646>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.464874>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.345772>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=131.14032>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.43627>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7040553>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=134.13173>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=129.92857>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2031584>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.85719>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.53879>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.318404>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.16474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.30671>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8580291>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.449265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=117.170746>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.27852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=127.219864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.221794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9980671>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.16052>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.26231>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.27852>}
```

```
pe=(), dtype=float32, numpy=3.898217>},
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.85003>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.80475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.045277>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=127.67948>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.75358>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9259057>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.77973>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.16112>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6186154>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=134.25525>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.70702>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5482259>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=124.86048>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.52839>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3320937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=124.92012>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.59256>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3275642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.44168>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.7605>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6811814>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=127.31073>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.118576>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1921525>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=127.10327>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.43236>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6709175>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.43492>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.649864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.78506>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=128.98518>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=124.80351>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1816764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.64941>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.67823>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9711761>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.947716>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.65447>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.293242>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.84175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.16585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6759>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.09068>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.41846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6722245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=124.813446>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.35114>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4623046>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=129.14253>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.03901>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1035185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.45104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.51694>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9341018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.52783>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.791435>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7363944>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.92443>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.39434>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5300875>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.632065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.526924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.105138>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=117.00266>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.84898>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5300875>}
```

```
pe=(), dtype=float32, numpy=4.153678>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.1745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.83201>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3424897>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.84438>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.57353>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.270852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.2685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.562996>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7055035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.51391>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.05067>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4632425>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.303856>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=117.846146>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.457713>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.72378>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.4017>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.322073>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.331245>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=117.9591>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3721476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.11326>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.52937>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5838876>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.25891>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.33606>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9228516>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.17973>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.26932>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9104125>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.0271>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.40876>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6183367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.40825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.96193>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.446318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.9891>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.655464>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.333631>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.17826>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.750404>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4278564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=129.13902>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.57611>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5629113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.31782>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.933495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3843246>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=131.25504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.15442>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.1006103>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=130.15579>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=124.99611>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.159688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.22057>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.94845>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.272124>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=127.81885>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.20009>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6187615>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.57479>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.263054>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.311736>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.674255>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.745415>, 'kl_loss': <tf.Tensor: s
```

```
hape=(), dtype=float32, numpy=4.9288406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.055374>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.609535>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4458394>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.93504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.246086>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6889544>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.28278>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.12912>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.1536646>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=128.7554>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=124.1157>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6397047>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.98744>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.82216>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.165286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=129.0306>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.29883>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7317615>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=125.68583>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.59794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0878925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.94232>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.6547>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2876177>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.61389>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.523506>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.090382>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.87474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.87328>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0014567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.337456>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.09198>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2454743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.21989>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.14817>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0717173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.93818>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.852036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0861464>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.19216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.790695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.401465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=117.874374>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.57648>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2978973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.4152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.98308>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4321184>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.992355>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.88417>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1081886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.15041>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.25391>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8965077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.661514>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.73163>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.929889>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.00993>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.43089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.579039>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.65187>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.962906>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.688966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.96457>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.14396>, 'kl_loss': <tf.Tensor: sha
```



```
pe=(), dtype=float32, numpy=4.8206124>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=126.02129>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.39293>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6283638>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=127.43398>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.61965>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8143337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.84985>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.25523>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5946193>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.091385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.447784>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6435986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.80259>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.53942>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.263165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.22282>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.830475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3923407>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.607315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.61574>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.991578>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.15151>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.88056>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2709494>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.963745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.96353>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0002165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.304184>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.82062>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4835696>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.640854>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.2672>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.373658>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.75386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.38416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3696938>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=121.95808>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=117.69849>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2595916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=128.08513>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=123.790085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.295051>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.534454>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.21218>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.322276>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.281>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.355736>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.925264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.27651>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.53983>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7366767>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.19897>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.54012>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6588416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.40177>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.410614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9911556>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.41072>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.48544>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9252768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.45033>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.833015>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.617318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.1744>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.68036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9252768>}
```

```
e=(), dtype=float32, numpy=4.494041>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.293274>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.45381>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.83946>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.35586>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.25614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.0997148>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.7446>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.730225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.0143743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.69148>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.4733>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2181892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.747284>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.58119>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.166095>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.028244>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.23553>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.792718>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.20096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.51705>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.68391>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.37184>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.74716>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6246767>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.64001>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.16342>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.476586>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.55621>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.74254>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8136773>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.555405>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.23804>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3173676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.6673>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.52303>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1442676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.793>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.52548>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.26752>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=122.52145>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.22273>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2987146>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.198784>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.802605>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.396182>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.41165>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.869545>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5421076>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.62571>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.06751>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5581994>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.360405>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.12259>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2378154>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.78421>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.40748>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.376733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.710556>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.96119>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.749367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.73091>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.957016>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7738957>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.964714>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.19845>, 'kl_loss': <tf.Tensor: sh
```

```
ape=(), dtype=float32, numpy=4.766263>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.76447>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.394745>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.369725>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.4597>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.34549>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1142097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.05112>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.37811>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6730003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.3132>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.92698>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.38622>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.68552>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.59904>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0864778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.77694>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.12329>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6536453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.566536>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.399864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1666746>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=117.51152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.291725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2197933>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.22444>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.61734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6070976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.45799>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.85696>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6010356>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.70217>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.735466>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.966703>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.89635>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.89714>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.999209>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.18314>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.24151>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.941632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.0475>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.24053>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.806969>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.22307>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.6809>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5421653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.17338>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.14266>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.030715>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.23462>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.32117>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9134493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=117.75065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.72482>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.025824>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.29159>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.9373>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.354285>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.99328>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.95385>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.039428>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.41461>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.648705>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7659035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.8638>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.61582>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7659035>}
```

```
e=(), dtype=float32, numpy=5.2479744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.13547>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.66882>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.466647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.86063>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.672554>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.1880746>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.245255>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.29353>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.951724>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.55138>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.74884>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.802535>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.678665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.88118>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7974863>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.5825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.67615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.906348>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.27353>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.511314>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7622132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=117.04998>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.79831>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2516737>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=118.26947>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.78754>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.481932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.08235>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.65765>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.424694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=119.00803>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.62164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.386394>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=115.931465>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.67174>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2597303>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.087006>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.78573>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3012786>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.60899>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.399704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.209292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.33405>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.29809>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.035963>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.20674>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.64389>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.562847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.05283>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.812386>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.240447>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.37243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.20312>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1693134>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.78003>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.3454>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4346313>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.58629>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.18587>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4004226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.22913>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.46912>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.76002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.471054>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.58845>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4004226>}
```

```
e=(), dtype=float32, numpy=4.8826065>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.72365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.19145>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5321956>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.64775>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.62772>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.0200276>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.74598>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.447975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.298007>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.2784>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.376434>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9019637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.28335>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.25483>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.028516>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.284096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.60489>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.679204>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.88529>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.40294>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4823503>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.40003>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.92605>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4739847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.65289>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.470345>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.182547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.236176>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.105316>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.13086>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.449486>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.020096>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4293923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.27342>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.30351>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9699087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.80676>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.8192>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9875603>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.97091>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.54472>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4261847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.74208>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.32667>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.415413>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.85099>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.04857>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8024187>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.67557>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.68014>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.995433>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.742>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.01449>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.727507>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.53504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.05868>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4763656>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.722435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.23914>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4832926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.16873>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.96543>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.203299>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.034134>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.71851>, 'kl_loss': <tf.Tensor: sh
```

```
ape=(), dtype=float32, numpy=4.3156223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.694435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.45844>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2359953>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=114.75539>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.13666>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.618725>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.81208>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.24432>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5677557>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.87296>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.49994>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.373027>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.766624>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.19612>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.570502>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.65403>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.59352>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.060511>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.054054>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.83675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.217308>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.86736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.70924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.158122>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.40106>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.70372>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6973424>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.92122>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.19631>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.72491>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.23056>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.42057>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.809993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.367134>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.516785>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.850351>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.32191>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.7668>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5551095>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.4527>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.681465>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7712317>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.16685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.87967>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.287179>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.01309>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.68516>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.327937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.69721>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.081825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.615388>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.58778>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.851585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7361984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.78088>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.16594>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.614944>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.58336>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.0727>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.510661>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.14132>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.85336>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.287953>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=112.036896>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.57396>, 'kl_loss': <tf.Tensor: sh
```

```
ape=(), dtype=float32, numpy=4.462938>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.364136>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.8773>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.48684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.755775>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.55293>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.202843>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.45324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.65529>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.797948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.45859>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.50862>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.949963>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.39504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.19096>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2040815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.142296>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.61684>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5254626>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.86254>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.263725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.598819>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.29252>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.66259>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6299305>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.675606>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.51349>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.162117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.70161>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.618324>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0832825>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.248985>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.99238>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2566037>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.00653>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.67566>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3308725>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.87957>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.55632>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.323251>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.88283>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.12444>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.758386>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.35597>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.102875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.2530994>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.8896>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.79007>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.099534>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.64283>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.6868>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.956035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=120.54301>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=116.251915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.291091>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.63026>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.71031>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9199433>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.89403>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.33173>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.562293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.29927>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.33028>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9689918>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=117.64169>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=111.95093>, 'kl_loss': <tf.Tensor: sha
```

```
pe=(), dtype=float32, numpy=5.6907625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.02934>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.48534>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=6.54401>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.5287>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.09577>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4329286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.92422>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.001015>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9232035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.55952>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.00421>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.555303>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.67183>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.71534>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.956486>}
Epoch 1/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.57529>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.95576>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.619529>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.80149>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.092575>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.708917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.39975>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.81158>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.588169>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.61094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.23264>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.378298>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.19881>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.805275>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.393535>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.58251>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.65428>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9282274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.66342>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.846466>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.816958>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.969574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.37184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.597734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.896805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.85462>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0421824>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.470474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.3915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.07897>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.03138>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.50154>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.529841>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.1073>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.65684>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4504647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.40714>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.06487>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.342267>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.811775>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.419426>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.392349>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.1553>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.48011>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.675184>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.34767>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.11432>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.2333555>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.20558>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.11432>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.2333555>}
```



```
<tf.Tensor: shape=(), dtype=float32, numpy=93.26846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.937117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.96602>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.23374>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.732279>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.23201>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.53579>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.696219>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.09874>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.24599>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8527517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.674545>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.88023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7943077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.16922>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.52525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6439643>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.27724>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.48859>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7886543>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.54631>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.307144>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2391653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.50913>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.33992>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1692095>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.79995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.37475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4251986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.6716>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.09539>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5762134>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.31566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.899925>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4157357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=110.11662>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.17507>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9415545>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.52184>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.08682>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.435022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.48379>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.927826>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5559645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.58755>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.887566>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.699983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.43359>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.87701>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5565834>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.94243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.298355>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6440763>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.946594>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.56903>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.377563>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.54688>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.45182>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.095064>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.611244>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.356186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.2550597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=113.92848>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.0739>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.854581>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.12256>, 'reconstruction_loss':
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.26111>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.861449>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.740135>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.89285>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.847282>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.701195>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.854965>, 'kl_loss': <tf.Tensor: sh
ape=(), dtype=float32, numpy=4.846226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.05926>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.14045>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.9188056>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.82864>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=93.61813>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=5.210507>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.77257>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.91324>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.859329>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.32523>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.59788>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.7273555>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.134094>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.5566>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.577495>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.821724>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.79057>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=5.031152>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.57441>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=91.056175>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=5.5182366>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.198555>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.014206>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=5.184348>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.958626>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.9603>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.998332>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.266045>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.56176>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.704283>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.73042>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=89.07935>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.6510725>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.17405>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=92.195526>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.978524>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.959496>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.85925>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.1002398>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.79699>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=95.07262>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.7243757>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.05852>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=93.97497>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0835485>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.458664>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.59725>, 'kl_loss': <tf.Tensor: sh
ape=(), dtype=float32, numpy=3.861409>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.32165>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.68994>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6317074>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.29124>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=93.05017>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.241069>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.062225>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.676956>, 'kl_loss': <tf.Tensor: sh
ape=(), dtype=float32, numpy=4.385272>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.68901>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.24243>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4465814>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.89903>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.95747>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9415584>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.8097>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.728966>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.080737>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.8517>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.312485>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.539218>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.65422>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.15697>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.497252>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.73339>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.93218>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8012066>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.60352>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.93204>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.6714845>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.408134>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.12381>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.284322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.790276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.98093>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.809352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.07288>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.4646>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6082854>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.892975>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.174904>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7180734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.5521>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.2662>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.285907>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.47985>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.92349>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.556359>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=106.04234>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.279465>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.762877>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.85187>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.13733>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7145367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.844574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.063156>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.781415>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.12154>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.58341>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5381274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.61995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.20844>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.411504>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.98129>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.17983>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8014636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.62293>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.706>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9169297>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.43593>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.90246>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.533473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.34215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.46312>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8790293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.60499>, 'reconstruction_loss':
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=94.95857>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=4.6464167>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.356>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=97.1695>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.1865044>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.58898>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=90.6983>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.8906817>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.4223>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=89.37865>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=5.043659>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.12125>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=91.25467>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.8665776>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.479645>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.72699>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.752655>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.472374>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.8793>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5930676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.60004>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=92.11971>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.480326>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.209984>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.56867>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.641309>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.76813>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=89.02049>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.7476387>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.24653>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=90.54849>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.6980395>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.0124>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=89.21411>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.798289>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.72348>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.94897>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.774516>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.719086>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.8999>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.819183>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.64495>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.00069>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.6442633>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.717636>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.93165>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.7859855>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=107.83687>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.17698>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.6598864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.33311>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.90637>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.426735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.7938>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=95.4655>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.3283005>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.59946>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.46876>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=5.1306963>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.58693>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=91.42725>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=5.1596766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.64629>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.863594>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.782701>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.56293>, 'reconstruction_
```

loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.876495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6864347>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.28322>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.243324>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.039893>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.7589>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.24444>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5144663>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.24793>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.15503>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0929008>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.30395>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.73571>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.56824>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.91459>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.21926>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.695327>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.29851>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.11837>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.18014>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.07702>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.04371>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.0333123>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.89912>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.289085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6100283>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.692444>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.605515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0869303>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.043884>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.49519>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.548694>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.865845>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.25365>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.612195>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.8163>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.07357>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7427316>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.791695>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.24864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5430512>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.54786>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.340004>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.207857>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.25333>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.02633>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.226996>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.7187>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.584206>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1344895>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.50892>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.11848>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.390443>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.47596>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.05479>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.421173>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.984764>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.71169>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.273069>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.2237>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.24136>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.982335>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.36328>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.2919>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.071378>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.322624>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.2919>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.071378>}

```
shape=(), dtype=float32, numpy=89.35>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.9726257>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.30806>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=91.4505>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.8575583>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.66457>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.97055>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.694024>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.49588>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=94.87432>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.6215563>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.43793>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=92.85747>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5804563>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.50106>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.235565>, 'kl_loss': <tf.Tensor: sh
ape=(), dtype=float32, numpy=4.265498>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.22418>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=91.596375>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.6278114>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.17341>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=93.5115>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.6619143>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.59202>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.80663>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.7853823>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.19975>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.54801>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.6517444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.913>, 'reconstruction_lo
s': <tf.Tensor: shape=(), dtype=float32, numpy=95.56568>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.3473186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.84446>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.93848>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.9059825>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.616196>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.29062>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.325573>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.77076>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.39382>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.3769403>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.00545>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.133545>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.8719025>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.40214>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.64383>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.7583094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.81184>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.012985>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.7988534>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.91302>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.471146>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.441875>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.07915>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.56891>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.510235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=109.67431>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=105.22547>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.4488344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.01128>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=92.45999>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.551282>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.61833>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=92.07731>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.541022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.50665>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=90.165764>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.340886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.28217>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=91.98676>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.295409>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.725685>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.72657>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.999114>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.25217>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=93.93372>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=5.3184457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.21748>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.94348>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=5.2740035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.921844>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.692345>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=5.2295027>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.59301>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=91.32968>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=5.2633266>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.550064>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.47341>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=5.0766497>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.92263>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.9082>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=5.01443>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.92053>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=95.18141>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.739122>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.183205>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.696144>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.4870596>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.82151>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.06381>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.757695>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.56428>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=89.777695>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.786581>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.75221>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.83639>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.9158263>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.33427>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.78186>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5524035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.57449>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=94.0871>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.4873934>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.17049>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.79048>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.3800063>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.346245>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.81871>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.527535>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.035736>, 'reconstruction
_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.36077>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.674968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.73668>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=90.7698>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.9668837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.16548>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.64128>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5241966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.1895>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=88.03614>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.153356>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.97043>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.70008>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.2703447>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.22809>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.83353>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.3945603>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=108.86203>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.25652>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.605504>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=104.51462>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.97025>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5443635>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.86543>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.38718>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4782557>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.916954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.44554>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4714136>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.56604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.79176>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.774273>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.74688>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.45852>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.2883625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.76956>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.68375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.0858116>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.12265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.06123>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.0614142>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.01017>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.936195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.0739775>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.582535>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.72797>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8545694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.637184>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.716576>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9206095>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.76092>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.00258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.758339>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.2398>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.105644>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1341577>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.25136>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.88362>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.367733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.24873>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.71848>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.530247>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.30985>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.561874>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7479796>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.211464>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.562935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6485324>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.37898>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.83226>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.546724>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.203766>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.6139>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5898657>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.2445>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.63858>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6059175>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.456085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.456085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.456085>}
```


loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.629105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8269777>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.46769>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.822395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6452966>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.94802>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.728584>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2194376>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.20966>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.78027>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.429387>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.61098>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.19394>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.417034>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.22677>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.323>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9037714>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.46763>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.17931>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.288317>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.69568>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.830414>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8652635>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.780075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.03976>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.740321>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.65167>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.38744>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2642283>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.90335>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.742836>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1605177>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.36795>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.41056>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9573913>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.67311>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.0072>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.665909>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.89787>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.59552>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.302351>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.303986>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.98612>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3178644>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.99247>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.92964>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.062831>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.789474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.09244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6970396>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.825485>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.86094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9645457>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.96299>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.51029>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4527006>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.87991>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.18632>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.693597>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.01932>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.190704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8286133>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.713776>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.01416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.699613>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.89028>, 'reconstruction_loss':

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.393326>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4969587>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.395485>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.86304>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.532446>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.296265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.9953>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3009667>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.6186>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.43647>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1821284>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.22647>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.19561>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.030864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.92782>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.84429>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.0835276>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.48296>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.3723>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.1106668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.79465>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.75706>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.0375924>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.17885>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.1916>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9872475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.51801>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.66285>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.855165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.91214>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.31096>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.601181>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.75373>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.093124>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6606054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=102.37363>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.78456>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5890694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.98605>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.05816>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9278932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.44228>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.83506>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6072226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.345566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.297066>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.0484996>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.30882>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.55168>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7571397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.56369>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.29121>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.272484>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.94511>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.95577>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9893346>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.40644>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.428375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9780688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.41827>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.37432>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0439425>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.71379>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.237045>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.476747>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.83986>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.29121>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.272484>}
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.29342>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5464416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.185104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.37294>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.812163>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.30673>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.92451>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3822217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.06943>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.43505>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6343765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.00893>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.80987>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.199061>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.402275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.927315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.474963>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.90174>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.417305>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.484437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.381355>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.12861>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.252748>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.49732>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.09402>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.403304>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.29305>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.961815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.331237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.16812>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.144554>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0235696>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.811424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.738556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.072866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.28608>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.54065>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.745427>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.76044>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.10645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6539803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.66262>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.72548>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9371405>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.60604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.9603>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.645741>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.98055>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.9783>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.002249>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.79425>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.75419>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.040059>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.2827>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.73294>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5497556>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.64816>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.29516>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.353002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.182335>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.66585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5164905>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.346245>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.514244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.832003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.94817>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.99628>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9518986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.64225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.96819>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6740565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.17798>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.71069>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4672823>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.91278>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.55537>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3574142>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.38742>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.32522>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.062201>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.11656>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.46291>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6536474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.62477>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.704994>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.919774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.27002>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.07713>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.192883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.15712>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.70211>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4550123>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.37555>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.06082>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.31473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.53362>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.82878>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.70484>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.96487>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.285164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.679705>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.13704>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.41508>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7219644>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.072136>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.575>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4971375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.926285>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.331474>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5948086>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.71084>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.0596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.651236>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.451706>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.2616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.190107>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.30426>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.125885>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1783724>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.692726>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.886566>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.806159>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.096634>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.40042>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6962166>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.91168>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.4777>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.433982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.738945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.230446>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5084977>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.40123>, 'reconstruction_loss':
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=95.48453>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.916705>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.02194>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.327385>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6945596>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.02816>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.85089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.1772676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.76835>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.58919>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.179158>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.419075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.99081>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4282675>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.823>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.07664>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.74636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.71976>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.51556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.204197>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.909515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.87734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.032173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.04757>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.37506>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6725097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.94926>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.13679>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8124676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.18501>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.00753>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.1774817>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.69826>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.84267>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8555937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.66797>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.23507>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4328985>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.42019>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.23734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.182845>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.03695>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.58334>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.453604>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.211075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.60394>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.607132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.874405>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.42217>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.452235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.340515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.0015>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3390145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.339745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.81325>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.526498>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.9838>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.67581>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3079925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.73443>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.43593>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2984986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.184105>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.59224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5918665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.88874>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.43528>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.453458>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.50144>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.00444>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.497>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.41692>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.11297>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3039565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.53212>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.608025>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9240966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.96316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.02818>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.934976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.06457>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.370186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6943817>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.45435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.719574>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.734782>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.92653>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.09418>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.832355>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.62181>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.71184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9099705>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.67851>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.62727>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.051238>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.84717>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.27805>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5691113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.60192>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.995674>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.606244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.81051>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.47267>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3378406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.228134>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.74453>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.483602>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.578766>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.64207>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.02122>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.540344>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4808755>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.705376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.50746>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1979117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.54577>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.00095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.544812>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.46972>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.977776>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4919405>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.08756>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.64849>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.439073>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.10277>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.76091>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.341855>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=101.20315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.75214>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4510107>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.49558>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.01413>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=4.48145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.02906>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.00955>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.01951>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.24573>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.33711>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9086165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.542694>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.83074>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.711955>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.64045>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.74675>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.8936973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.69252>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.77937>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.913146>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.3636>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=87.66743>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.6961775>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.77283>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=91.19941>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5734158>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.2271>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=87.40392>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.8231735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.97128>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=89.98837>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.98291>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.68341>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.777214>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.9061995>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.92903>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=90.61529>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.3137474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.14376>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.94793>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.195829>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.48529>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.70955>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.7757416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.19363>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.51891>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.6747165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.25572>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.59985>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.6558695>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.90374>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.399956>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.5037827>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.98865>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.25127>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.737383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.88526>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.58557>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2996907>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.81028>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.75013>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0601482>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.66732>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=93.367455>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2998643>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.45338>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.12962>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.3237543>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.56525>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.12534>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=4.4399033>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.09957>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.49408>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.605494>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.70314>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.19958>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5035605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.76591>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=90.47906>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.286849>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.20859>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=89.84957>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.35902>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.40414>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.80742>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.596718>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.34808>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.62032>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.7277637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.61208>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.9431>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.668982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.42905>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.09406>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.3349824>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.679665>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.502914>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.176751>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.09577>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.49274>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.603038>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.008064>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.57815>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.4299164>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.00732>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=90.80039>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.206922>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.822655>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.9768>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8458571>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.39141>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.19371>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.197703>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.93438>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=92.67343>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.260946>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.67063>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=92.126724>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.543906>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.61422>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=89.101456>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.512762>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.15022>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=91.38784>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.762379>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.49066>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.72485>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.765811>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.711784>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.99289>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.7188935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.91071>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.34749>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5632224>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.192215>, 'reconstruction_
```



```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.78472>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.407491>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.26867>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.19291>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0757594>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.79744>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=91.05733>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.7401137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.50157>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=91.58477>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.9167976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.5867>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=90.4344>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=5.1522975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.512985>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.71914>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.7938476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.28491>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.737625>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.547288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.21796>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.287605>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.930352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.69141>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.56234>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=5.129065>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.11364>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=89.21267>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.900969>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.50674>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.73177>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.7749605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.46581>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.8267>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.6391172>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.61941>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=89.96106>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.6583505>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.96172>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.26522>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.6965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.72305>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.92843>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7946248>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.36383>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=93.145065>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2187624>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.26565>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=93.88766>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.377992>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.17244>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.879>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.293441>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.3863>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=95.026985>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.359315>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.05292>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=91.778366>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2745514>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.53617>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=90.297874>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2382956>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.51285>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=89.279015>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2338343>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.96051>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.826614>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.1338964>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.67054>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.161896>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.5086436>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.72019>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.480705>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.239488>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.16263>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=90.88538>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2772408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.286156>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.85327>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.432881>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.18665>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.75208>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.4345694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.42557>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.80372>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.621848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.3599>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=77.6462>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.7137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.74057>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.290596>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.4499764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.30079>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.42633>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.874455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.1527>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=81.09925>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=5.0534506>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.680664>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.836266>, 'kl_loss': <tf.Tensor: sh
ape=(), dtype=float32, numpy=4.844397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.14956>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.276276>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.873282>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.19719>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=90.59577>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.601421>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.28309>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.886055>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.3970346>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.121155>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.72916>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.3919997>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.32448>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.12385>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.20063>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.754684>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.605286>, 'kl_loss': <tf.Tensor: sh
ape=(), dtype=float32, numpy=4.1494007>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.49752>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.24305>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.254468>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.74161>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.08599>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.6556177>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.57238>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.875275>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.6971054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.85556>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.583885>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.271675>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.758606>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.46166>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2969403>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.728264>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.16198>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.566284>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.971>, 'reconstruction_lo
s': <tf.Tensor: shape=(), dtype=float32, numpy=88.24948>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.721519>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.21027>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.74936>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.460912>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.46341>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.10387>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.3595405>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.29344>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.9326>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.3608437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.76138>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.58353>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.177857>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.91041>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=92.69317>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.217242>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.33735>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.13251>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.204843>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.91678>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=93.45966>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.457113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.991165>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.54328>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.447886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.623024>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.38871>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2343144>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.78502>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.501114>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.283901>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.283325>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.53356>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.7497663>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.42674>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.54738>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.8793616>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.79572>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.96762>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.8281035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.38892>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.887024>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.501903>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.620346>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.08517>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.535176>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.78202>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.21315>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5688705>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.47703>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.92759>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.549437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.31193>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.95549>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.3564367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.06906>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.46223>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.606837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.433716>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.48143>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.9522877>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.391335>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.350716>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=5.040621>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.741035>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.35571>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.3853254>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.635315>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.17198>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.463336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.44694>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.10375>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.3431883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.216705>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.92306>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2936487>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.77514>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.659355>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.1157823>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.110855>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.75326>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.3575935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.41046>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.12123>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2892275>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.06982>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.24075>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.829061>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.081726>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.525185>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.556545>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.07529>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.2453>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.8299828>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.24642>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.16361>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.082806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.96745>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=89.62994>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.3375196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.248856>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.871216>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.377641>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.1902>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=91.72627>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.463931>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.74514>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.6344>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.1107435>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.424934>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.389984>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.0349517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.3292>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=89.119385>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2098165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.353966>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.09521>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2587605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.56274>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=91.33187>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2308664>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.58221>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.94492>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.6372843>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.74739>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.82403>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=4.9233627>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.12386>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.11337>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0104895>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.33714>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.55304>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7841058>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=103.83427>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.61193>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2223372>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.06209>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.37589>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.686192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.23472>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.8534>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.3813195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.86385>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.147865>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.715987>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.81487>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=92.4212>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=5.393668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.75828>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.77016>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=5.9881186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.58769>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.33514>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2525544>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.95417>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.379166>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.575008>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.35598>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.28674>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=5.0692353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.81026>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=90.84837>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9618802>}
Epoch 2/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.94968>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.462204>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.4874725>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.32588>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.741135>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.584751>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.855316>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.42858>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.426738>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.61787>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.32112>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2967443>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.939674>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.6716>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2680726>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.94132>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.30093>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.6403985>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.379555>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.783264>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.596289>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.478035>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.08912>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.3889174>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.693115>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.80615>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8869598>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.452065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.77557>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.676488>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.505486>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.47797>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.0275164>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.87392>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.51263>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3612914>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.29719>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.00307>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2941217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.33539>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.082535>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2528563>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.14673>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.73189>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4148407>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.38767>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.56613>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8215423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.048515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.44831>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6002054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.54921>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.08726>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4619546>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.18817>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.730156>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4580164>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.08103>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.50937>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.57166>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.67181>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.109566>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.562238>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.08111>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.6194>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4617066>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.31808>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.74112>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5769606>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.85712>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.75462>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.102495>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.320885>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.284164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0367217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.54375>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.33296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.210786>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.63597>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.25332>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.382653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.78136>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.541855>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2395005>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.01203>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.23533>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7767043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.562416>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.18688>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3755326>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.747086>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.40798>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3391004>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.13433>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.63549>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.498842>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.18788>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.87024>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.317645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.561584>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.13013>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.4314556>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.336426>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.11227>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2241564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.767204>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.993355>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.7738514>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.69252>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.739006>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.9535136>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.24458>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.55293>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.6916475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.37403>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.74025>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.6337814>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.15713>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.58096>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5761614>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.0975>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=85.54844>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.5490623>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.4649>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=87.85408>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.6108146>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.14875>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.35616>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.792586>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.70449>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.15625>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5482416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.893524>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.419304>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.4742217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.7799>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=80.43786>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.342039>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.495155>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.80589>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.6892614>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.04557>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.038864>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=5.006706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.55103>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.77799>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.7730436>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.5193>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=79.957596>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5617027>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.72014>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.31661>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.40353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.55948>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.27781>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2816725>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.23132>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.40003>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8312945>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.6708>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.67448>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.996326>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.11205>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.658875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.453176>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.75928>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.770706>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.988572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.61406>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.7798>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8342605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.44203>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.86838>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5736518>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.613304>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.61735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9959595>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.46316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.21601>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.247149>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.47542>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.12957>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3458495>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.67611>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.98415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.691954>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.489525>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.67196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8175645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.805016>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.457306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.347712>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.76612>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.45237>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3137517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.8923>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.325485>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5668187>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.31553>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.052986>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.2625437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.61361>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.614784>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.998826>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.62273>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.02876>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5939665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.38642>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.99486>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3915663>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.38113>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.98971>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3914175>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.43645>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.389565>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0468855>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.55675>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.329056>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2276907>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.05608>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.57539>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.480688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.392685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.88658>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5061073>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.73492>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.22819>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.506729>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.51259>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.256615>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2559767>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.657486>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.521164>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.136325>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.582214>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.16655>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.4156632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.4475>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=80.924805>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5226974>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.781296>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.76964>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=5.011659>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.15626>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.62369>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.532569>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.517136>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.16082>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.3563128>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.5306>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=86.50502>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.02558>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.684715>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.17832>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.50639>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.411>, 'reconstruction_lo
s': <tf.Tensor: shape=(), dtype=float32, numpy=77.779724>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.6312776>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.68431>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.15187>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.532441>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.026405>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.56881>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.4575944>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.88371>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.57938>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.304337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.61807>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.37416>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.243908>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.35638>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.97911>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.377265>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.67249>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.25558>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.416913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.53487>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.16216>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.372705>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.474625>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.01612>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.458506>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.30526>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.86366>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.441598>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.55176>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.040886>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.5108685>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.03672>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.58536>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.4513597>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.041405>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.499>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5424056>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.24925>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.75806>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.491192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.027794>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.806404>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.221393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.965164>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.8445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.120627>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.28912>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.53612>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7530074>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.12099>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.37262>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7483697>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.26911>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.80101>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.468102>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.93334>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.51894>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.414397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.04131>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.38345>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.657857>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.17978>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.9281>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2516794>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.52191>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.61629>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9056213>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.25208>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.921616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.330467>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.32414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.84447>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.479672>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.12945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.1988>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.930646>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.60998>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.80776>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.802212>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.07117>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.701164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3700027>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.68482>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.766075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.918745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=96.59068>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.24794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.342744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.807625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.41767>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.389956>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.881134>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.51057>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.370567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.28346>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.06981>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2136564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.61239>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.546>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.066389>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.45128>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.38861>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0626707>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.43593>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.4086>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.0273275>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.01463>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.78901>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.225625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.041176>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.78402>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.257155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=97.63811>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=93.56241>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0757017>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.50567>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.90501>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.600659>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.4911>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=79.79785>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.693248>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.25365>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.62935>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.6242995>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.10016>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.584496>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.515667>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.86564>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.447945>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.417691>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.122185>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.707886>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.4142966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.0881>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=82.69258>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.395515>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.83251>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=94.69746>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.135057>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.479965>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.114296>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.365668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.55205>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.193115>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.358933>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.25678>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=89.735275>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.5215096>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.137276>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.71638>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.420901>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.360146>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.220406>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.139741>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=100.0683>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=96.23898>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8293138>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.49195>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.39378>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0981646>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.10088>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.982414>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.11847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.56783>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.06528>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.502555>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.48449>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.01403>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.470462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.7035>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.14952>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.553975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.53211>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.306526>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.225585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.04405>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.80508>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2389727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.552055>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.31602>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.236037>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.026436>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.71827>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3081675>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.52293>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.246284>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.276641>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.057686>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.92468>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.133003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.65498>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.55934>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0956454>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.37578>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.77185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.603926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.11776>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.25653>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8612294>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.15699>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.470276>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.686712>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.18901>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.52113>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6678786>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.67179>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.87777>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7940245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.14736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.40423>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7431335>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.87699>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.12246>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.754529>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.594185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.147896>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.446289>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.408455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.20158>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.206876>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.85262>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.48468>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3679457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.185524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.78794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.39758>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.177666>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.66231>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.515357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.11736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.81069>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.306671>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.455925>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.22984>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.226085>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.582855>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.45736>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1254954>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.311035>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.08913>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.221909>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.87709>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.55226>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.324828>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.74431>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.18659>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5577164>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.828384>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.66825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.160131>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.437355>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.51302>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9243293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.721634>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.966095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.755538>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.87261>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.00987>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8627415>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=99.20737>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.78693>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.420442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.4503>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.14836>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.301939>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.484856>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.277985>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.206872>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.6599>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.458206>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2016873>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.18016>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.69418>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.485976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.33051>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.522385>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.8081255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.17781>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.51685>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.660958>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.07259>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.43069>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6419096>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.94909>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.32221>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.626878>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.44937>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.02615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.423214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.71471>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.170044>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.544662>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.93754>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.49868>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4388566>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.54675>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.63794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9088154>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.72078>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.60808>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1127014>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.44212>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.26695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.17517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.3011>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.00577>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.295335>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.817276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.61617>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.201106>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.29668>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.0507>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.245976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.3882>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.128624>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.259574>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.49514>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.21269>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2824454>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.22849>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.75258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4759173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.942085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.6505>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2915893>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.74125>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.75184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.989408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.90227>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.75394>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1483293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.19476>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.05105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.143711>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.45909>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.91942>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.539676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.96989>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.16013>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.809753>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.11736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.59882>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5185385>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.4872>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.0757>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4115>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.131325>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.11555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0157804>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.87237>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.89382>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.978548>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.0519>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.47926>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5726423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.984276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.647224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3370514>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.563736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.49147>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0722656>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.287315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.198105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.089207>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.577065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8520675>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.22313>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.88059>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3425364>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.49234>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.93996>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5523815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.19514>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.02905>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.166086>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.51693>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.1253>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3916306>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.108635>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.60673>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.501904>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.66952>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.210754>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4587646>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.64758>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.3731>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.274481>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.60365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.385185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.218464>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.59608>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.55123>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0448427>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.70309>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.753876>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9492123>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.19432>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.6379>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5564165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.59376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.945915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6478434>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.0046>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.38168>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6229196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.36891>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.80242>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5664864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.24531>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.724304>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.521001>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.050575>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.57946>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4711127>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.36908>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2750793>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.82508>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.49767>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.327405>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.95649>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.71086>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2456274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.01952>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.293304>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.726216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.86601>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.607124>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2588854>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.24404>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.66783>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5762124>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.38574>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.043396>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.3423476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.95053>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.92814>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.02239>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.47448>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.679214>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7952645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.67572>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.85949>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.81623>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.64588>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.772964>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8729172>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.62073>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.328545>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.292185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.18458>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.89392>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.290658>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.50982>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.99286>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5169573>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.47977>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.344376>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.1353908>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.58453>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.00748>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5770607>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.99554>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.97906>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.016477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.942085>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.7785>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.1635847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.61096>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.39952>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2114444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.92091>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.882866>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0380487>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.78294>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.58668>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.1962624>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.143394>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.006134>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.137259>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.378525>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.5095>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8690255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.6496>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=89.729904>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9196906>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.15815>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.71503>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.4431233>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.77506>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.41446>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.360601>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.18647>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.65752>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.528956>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.34017>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.97763>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.362539>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.8732>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.309616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5635867>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.33>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.67251>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.657493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.11902>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.89109>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2279243>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.290855>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.28122>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0096374>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.42628>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.30295>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1233273>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.33676>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.892006>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4447575>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.23063>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.70947>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5211554>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.328766>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.00902>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.319747>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.75114>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.55447>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.196669>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.34652>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.24979>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.096736>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.7301>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.90045>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8296509>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.92927>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.66123>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.268039>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.56572>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.089935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4757805>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.66256>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.67909>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.983467>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.17463>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.97883>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1957984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.27682>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.164665>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1121492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.47581>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.0712>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4046125>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.777954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.366005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4119453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.09608>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.67989>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.416181>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.4415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.24008>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2014136>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.40538>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.12645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2789335>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.327126>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.98318>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.34395>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.44369>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.457436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9862485>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.154976>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.15648>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.998499>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.675964>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.23136>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4446044>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.55104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.1278>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.423239>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.43222>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.22562>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.206607>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.92663>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.72761>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.199018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.17193>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.42637>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7455623>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.82046>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.24536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5750942>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.86487>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.116066>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7487993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.46629>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.711235>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7550573>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.443>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.29123>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.151772>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.866165>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.50423>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3619394>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.26126>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.58562>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.675641>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.13985>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.5706>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.569247>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.49647>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.21532>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.281151>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.70686>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.32972>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3771467>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.7221>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.12066>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.601439>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.5294>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.11001>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.419395>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.21174>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.04533>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.166413>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.492805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.541405>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9513981>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.60324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.47021>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1330323>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.72943>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.47141>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.258017>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.89182>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.76919>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.122635>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.44905>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.403>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.046051>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.03716>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.832954>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2042074>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.675354>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.6374>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0379553>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.21638>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.18249>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0338926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.97107>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.68949>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2815766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.21662>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.05181>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.1648073>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.70872>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.5309>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.1778173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.95196>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.92287>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.029091>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.22894>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.73385>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.4950914>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.91599>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.394485>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.5215096>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.5898>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=81.18841>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.4013877>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.058136>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.724884>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.333253>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.8524>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=76.459724>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.392675>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.72333>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.00473>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7185948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.03683>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=88.20009>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8367417>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.57674>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.378975>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.1977587>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.51259>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.26982>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.242769>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.98533>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.9005>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.084831>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.95359>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.77144>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.1821523>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.7535>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=82.25817>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.495329>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.61731>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.45061>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1667013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.98102>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.062126>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9188905>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.698166>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.45277>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.245397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.8955>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.6889>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2065935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.89402>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.7225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.171515>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.87349>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.73913>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1343575>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.25423>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.97999>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.274235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.35619>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.09924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2569532>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.951454>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.08765>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8638053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.887856>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.09551>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7923408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.552765>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.14105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4117117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.68361>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.19318>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.490432>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.12345>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.61281>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5106397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.8367>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.48352>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3531837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.337204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.063995>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.273205>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.00504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.56455>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4404907>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.95666>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.39083>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5658293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.276024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.756035>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5199914>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.192726>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.17888>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0138493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.48456>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.56266>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9219003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.22587>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.85399>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3718786>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.40345>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.07582>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.327626>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.29669>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.9634>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.3332872>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.377266>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.18806>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.1892104>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.08601>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.756966>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.3290505>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.21148>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.181305>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0301714>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.17482>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.359375>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8154438>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.72489>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.64145>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0834417>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.25087>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=89.147194>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.103674>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.22772>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.02993>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.1977897>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.89754>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.62162>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2759175>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.06443>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.88245>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.1819873>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.49815>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.471214>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0269384>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.44256>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.36786>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0746965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.4152>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=81.12087>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.2943287>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.60304>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.20421>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.398835>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.07576>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.694664>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.381096>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.457825>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.37594>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0818872>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.38697>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=87.39815>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9888196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.71278>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.446236>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.266547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.62582>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.46208>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.1637373>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.3825>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=85.396194>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9863076>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.33702>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.62692>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7100968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.801186>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.86788>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9333024>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.361694>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.39905>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9626427>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.06895>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.78903>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.279912>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.575195>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.33133>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.243863>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.97379>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.53476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.439033>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.872444>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.42448>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4479647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.40263>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.012695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3899417>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.93331>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.669846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2634687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.81995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.6973>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1226435>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.68189>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.82589>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8560035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.633>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.187325>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4456754>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.809784>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.2509>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5588846>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.34878>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.64178>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7070007>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.84918>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.443924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4052544>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.32736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.13925>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.188113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.93117>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.42234>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5088234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.96548>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.2349>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.730577>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.54681>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.06684>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.479962>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.33856>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.96007>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3784947>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.62426>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.35422>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2700415>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.84123>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.59354>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2476974>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.63182>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.354256>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2775683>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.44223>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.815636>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6265907>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.20927>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.2276>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9816651>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.12423>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.03395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0902777>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.37227>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.346504>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.025764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.33066>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.21638>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1142845>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.144615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.11475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.02986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.405304>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.39786>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0074463>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.24166>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.24032>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0013437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.23681>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.29398>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9428272>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.37194>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.154175>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2177672>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.88138>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.8788>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.002581>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.530426>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.479774>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.050649>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.94908>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.79057>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1585093>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.93114>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.762886>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1682515>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.93998>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.67003>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2699537>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.275024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.93986>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3351693>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.81368>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.65412>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1595583>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.50163>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.00184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.499795>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.40104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.79075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6102877>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.50938>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.053185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.456193>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.69426>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.275085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4191732>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.64802>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.42487>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2231455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.8785>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.78853>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.089976>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.4884>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.440956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0474443>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.30082>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.34255>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.958264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.38959>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.41122>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.978372>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.79796>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.78445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0135145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.06595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.764946>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.301004>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.10487>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.73563>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.369245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.43754>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.430786>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.006755>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.72408>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.686844>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.037239>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.92389>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.697876>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2260146>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.6075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.22574>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.381757>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.29886>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.1263>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1725607>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.96583>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.81577>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.150057>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.95548>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.83631>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.119174>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.75701>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.80525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9517608>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.00243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.02344>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9789975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.17285>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.20361>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9692345>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.59655>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.378044>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2185025>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.53663>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.32448>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2121477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.25898>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.227196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0317864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.586494>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.54045>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0460453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.30692>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.8897>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4172235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.258446>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.74642>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.512021>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.16822>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.71956>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.4486585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.13362>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.9034>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.230221>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.215965>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.97408>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.241885>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.48576>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.27271>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.213051>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.4245>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=80.23182>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.1926804>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.16553>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.12408>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0414476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.91727>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.67909>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2381744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.39414>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.884514>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.5096307>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.99244>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.43084>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.5615993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.62167>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.56796>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0537086>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.244385>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.13117>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.113214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.18941>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.15851>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.030895>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.29789>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.31128>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9866073>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.10312>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.22333>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8797927>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.11274>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.988976>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.123765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.775406>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.73206>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0433416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.04692>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.57772>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.469201>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.4544>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=78.22615>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.228251>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.221756>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.55784>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6639183>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.229>, 'reconstruction_los
s': <tf.Tensor: shape=(), dtype=float32, numpy=80.37055>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.8584409>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.722565>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.65128>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.071283>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.296875>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.20684>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0900383>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.67274>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.47558>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1971593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.952385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.054016>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8983688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.10176>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.22592>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8758385>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.09007>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.05993>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.030141>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.80803>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.750114>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0579123>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.827446>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.81888>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.00857>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.286026>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.92346>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3625665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.26448>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.72806>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5364203>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.27389>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.4464>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.827481>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.32825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.68997>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6382782>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=98.080536>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.034485>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.04605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.717316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.3305>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.38682>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.193985>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.09168>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1022997>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.06971>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.70057>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3691397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.288895>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.35292>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.9359727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.774414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.40278>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=5.371638>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.14621>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.121445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.024767>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.19349>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.902725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2907667>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.16097>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.536835>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.624139>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.74362>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.9423>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8013244>}
Epoch 3/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.950386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.787025>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.16336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.60975>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.341934>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.267855>}
```

```
e=(), dtype=float32, numpy=4.2678137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.47788>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.370544>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.107337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.47825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.452995>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.025252>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.26571>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.25069>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.01502>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.233665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.93518>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.298487>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.00748>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.727684>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2797894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.17797>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.05095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1270194>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.67671>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.951866>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7248428>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.34345>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.08288>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2605743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.70494>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.14205>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5628924>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.76332>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.667015>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0963097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.17857>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.103226>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.075345>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.50367>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.46232>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0413547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.45614>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.31645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1396856>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.86704>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.45441>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4126368>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.52162>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.25884>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.262779>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.37976>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.20156>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1782036>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.292244>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.0869>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.205345>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.87839>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.59298>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.285411>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.82504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.55507>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2699704>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.003914>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.7991>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2048116>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.47196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.17156>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.300397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.60071>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.64777>, 'kl_loss': <tf.Tensor: shape=()
```

```
=(), dtype=float32, numpy=3.9529312>},
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.45073>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.57259>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8781376>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.59096>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.606255>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.72039>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.581726>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.1386614>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.63992>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.62813>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0117984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.45909>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=85.98123>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.4778566>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.61391>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.47759>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.136312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.281586>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.20367>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.077916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.39003>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.21214>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.177888>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.5381>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=76.523964>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.014135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.29715>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.19818>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0989656>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.09386>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.08294>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.010914>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.91797>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51334>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.4046273>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.84593>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.259384>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.5865474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.5491>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=90.138626>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.4104795>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.35129>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.02797>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.323319>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.659874>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.45858>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.201297>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.34379>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.12583>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.217959>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.62045>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.341675>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2787743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.17325>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.74716>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.4260855>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.79179>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.56937>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2224174>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.89608>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.71017>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.185916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.43878>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.38781>, 'kl_loss': <tf.Tensor: shape
```

```
=(), dtype=float32, numpy=4.0509725>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.981705>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.657394>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3243084>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.851204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.304504>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.5466976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.17987>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.8016>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3782697>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.38855>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.16792>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2206283>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.888885>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.75872>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.130168>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.22901>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.230835>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9981766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.81606>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.1653>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6507676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.02597>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.27832>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.747647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.75408>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.62632>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1277637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.15132>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.343094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8082287>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.7568>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.08001>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6767864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.414375>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.9482>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4661765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.81637>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.01933>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7970333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.10243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.05911>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.043317>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.234665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.11484>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1198244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.98613>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.59862>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3875136>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.76797>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.283676>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4842925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.043106>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.97326>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.069848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.87372>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.80178>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.071934>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.66174>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.413025>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.248719>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.78847>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.012726>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.7757444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.08314>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.48906>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.071934>}
```

```
=(), dtype=float32, numpy=4.594079>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.20455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.912415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.29214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.1693>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.05945>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.109845>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.108734>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.99276>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1159782>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.56853>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.74673>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8217964>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.915764>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.974075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.94169>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.84322>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.66797>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.175257>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.43601>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.19105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.244963>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.51541>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.27204>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.243371>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.871864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.860725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.01114>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.19305>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.275154>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9178913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.038826>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.92401>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.114812>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.211784>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.00933>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.202456>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.64996>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.04046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6095076>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.91525>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.65306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2621894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.49466>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.37118>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1234837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.476204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.61287>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8633323>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.59104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.368126>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2229133>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.79765>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.47458>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3230753>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.5122>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.23082>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.281382>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.85326>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.62917>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2240815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.33726>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.24789>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.08937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.845474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.81766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.08937>}
```

```
e=(), dtype=float32, numpy=4.0278206>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.41423>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.28071>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1335216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.4146>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.24736>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1672378>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.01495>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.87478>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1401777>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.74074>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.54429>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.196447>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.62435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.41862>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.205737>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.794785>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.55523>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2395515>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.29941>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.08868>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.210734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.253654>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.02373>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2299285>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.02266>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.801476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2211866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.11093>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.07944>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0314918>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.706406>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.76585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9405587>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.82303>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.426926>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.396102>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.99469>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.60269>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.391998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.75765>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.55739>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.200263>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.07858>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.91828>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1603007>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.33669>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.01448>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.322211>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.493416>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.46647>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0269456>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.79087>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.029495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7613728>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.29535>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.175934>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.119418>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.07566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.817505>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2581534>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.49498>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.854904>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.6400743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.77032>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.285995>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.119418>}
```

```
=(), dtype=float32, numpy=4.4843245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.39259>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.26722>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1253767>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.42753>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.68046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7470727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.3742>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.209145>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1650558>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.61809>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.39669>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.221399>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.6755>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.58534>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0901566>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.844574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.841156>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.003417>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.880806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.967186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.913617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.79698>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.90677>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.890213>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.741615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.86624>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8753765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.481094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.453>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0280905>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.31859>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.27093>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.04766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.46614>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.5914>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8747444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.502625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.24949>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.253135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.3138>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.99149>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.75671>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.48074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.275964>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.58645>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.40238>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.184068>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.94388>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.82905>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.114831>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.45305>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.3199>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1331472>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.18072>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.07278>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1079383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=93.87999>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.95318>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9268086>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.06802>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.017975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0500474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.218704>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.16944>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0500474>}
```



```
=(), dtype=float32, numpy=4.049264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.87069>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.69469>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1760015>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.9433>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.80077>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1425247>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.46861>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.55296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.915648>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.08472>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.38182>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7028956>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.66297>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.79023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8727393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.576584>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.66734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9092422>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.167786>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.9328>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.234982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.560684>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.37802>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.182659>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.682076>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.422485>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.259591>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.678055>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.7174>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9606571>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.01136>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.027695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.983663>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.16834>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.12922>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0391226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.900604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.79193>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1086693>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.069534>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.004074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.065464>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.90414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.96467>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9394696>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.33469>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.43335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9013379>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.02664>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.77275>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.253895>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.44364>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.98297>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4606733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.16788>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.85247>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3154073>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.11498>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.798195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3167887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.15062>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.71067>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.439948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.1974>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.72128>, 'kl_loss': <tf.Tensor: shape=
```

```
((), dtype=float32, numpy=4.476123>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.877365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.38345>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4939103>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.91407>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.74047>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1735983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.24076>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.26444>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9763215>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.18105>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.11237>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.068677>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.118645>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.99829>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.120355>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.384995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.20667>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1783247>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.28011>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.259865>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.02025>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.23817>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.26748>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9706893>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.63017>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.71766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9125123>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.68228>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.68845>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.993824>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.1102>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.032974>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0772285>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.54222>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.291374>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.250848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.65613>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.68741>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9687233>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.31887>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.53351>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.785361>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.018166>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.57064>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.447522>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.215515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.71705>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.498467>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=94.08658>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.846565>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.24001>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.90521>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.816505>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0887094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.903275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.94463>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9586396>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.948906>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.92442>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0244813>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.72134>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.47991>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.241421>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.41032>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.957344>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0887094>}
```

```
e=(), dtype=float32, numpy=4.452971>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.46414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.11978>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.344359>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.993034>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.66605>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.326984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.69809>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.39133>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.3067636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.41031>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.29656>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1137457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.17522>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.91648>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2587347>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.706726>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.528244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.178486>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.33592>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.56591>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7700088>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.35595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.40974>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9462152>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.24864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.27679>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9718585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.577805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.541794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0360084>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.406784>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.466415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9403663>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.25064>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.21176>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0388765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.342064>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.2773>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.064769>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.88958>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.841034>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0485435>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.41967>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.22979>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1898837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.98995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.96717>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0227804>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.74152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.9053>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.836228>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.871445>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.9235>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.947946>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.240074>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.281624>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9584498>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.15068>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.870255>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.280427>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.526306>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.051384>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.474926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.55626>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.318054>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0227804>}
```

```
e=(), dtype=float32, numpy=4.238204>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.72143>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.52183>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1996>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.21597>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.35926>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8567157>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.49533>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.63715>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8581748>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.27584>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.98411>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.291732>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.18445>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.08653>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.097913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.43326>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.54915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.884107>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.38423>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.48193>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9023018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.61485>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.95406>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6607864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.61359>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.538704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0748854>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.835686>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.594315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.241372>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.28524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.356255>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9289868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.71555>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.60449>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.111061>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.5891>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.36086>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.228242>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.67434>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.44928>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.225058>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.63962>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.55031>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.089306>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.06836>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10338>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9649806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.456635>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.63027>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8263664>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.77189>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.02064>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7512543>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.808624>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.599556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.209069>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.176094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86219>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.313906>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.54414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.27053>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.273613>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.58103>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.36654>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.273613>}
```

```
=(), dtype=float32, numpy=4.214493>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.44505>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.26042>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.184634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.40823>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.2488>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1594286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.49381>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.49323>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0005817>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.308014>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.244896>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.063117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.41341>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.4558>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9576035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.13506>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.56392>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5711408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.153595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.1645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9890945>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.60672>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.38719>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.219532>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.00679>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.94505>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.06174>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.281265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.45848>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8227806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.94551>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.33751>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6080022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.35858>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.71761>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.640967>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.86127>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.16189>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6993783>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.46158>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.3458>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.115775>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.616196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.517784>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0984144>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.80557>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.54771>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2578673>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.268974>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.346176>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9227993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.166756>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.68219>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4845657>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.3216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.47346>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8481414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.399025>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.46047>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9385524>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.277466>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.25224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0252256>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.092896>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.19531>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8481414>}
```

```
=(), dtype=float32, numpy=3.8975806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.24255>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.19511>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.047444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.28094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.31005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.970883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.7343>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.00889>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7254138>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.93277>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.16089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7718818>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.08807>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.83033>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.25774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.2553>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.13151>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.123798>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.82404>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.61023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2138166>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.6502>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.5173>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1328936>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.88054>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.68034>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.200199>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.91189>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.612206>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2996793>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.112274>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.13797>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.974305>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.542625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.74138>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8012466>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.664>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.75307>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9109352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.88843>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.689896>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1985292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.439095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.20694>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.232153>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.72091>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.679146>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.041765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.61269>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.661766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9509258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.085075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.2136>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8714786>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.03277>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.36876>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6640098>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.8023>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79121>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.011096>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.70686>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.54371>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.163153>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.43512>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.64213>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.011096>}
```

```
=(), dtype=float32, numpy=3.7929955>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.42987>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.45185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.978017>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.55558>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.61709>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9384937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.80881>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.66441>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1443973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.49007>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.3477>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.142366>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.42764>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.27708>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1505632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.83803>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.85578>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9822488>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.06968>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.05111>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.018573>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.61185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51887>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0929756>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.002945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.19696>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8059878>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.04721>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.2186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.828617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.6547>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.469>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1857014>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.99718>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.81021>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.186963>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.84158>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.83135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.010234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.399895>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.415405>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9844909>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.88323>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.241135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6420975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.02147>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.5405>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.480973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.052216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.606636>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4455786>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.62298>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.17531>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.44767>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.62613>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.66073>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9653976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.08098>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.97159>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.109388>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.158905>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.83598>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.322923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.59536>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.31922>, 'kl_loss': <tf.Tensor: shape=()
```

```
(=(), dtype=float32, numpy=4.2761383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.38469>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.31702>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.067675>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.62426>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.4776>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1466627>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.58142>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.25002>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.331397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.55087>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.33253>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2183437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.461945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.4549>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.007039>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.59372>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.7701>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.823613>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.071846>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.08277>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9890714>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.673096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.61567>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0574236>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.47033>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.49497>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9753594>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.12799>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.219505>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9084835>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.80486>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.78816>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0166993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.132454>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.2177>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9147568>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.06017>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15969>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9004803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.855064>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.760925>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0941377>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.55077>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.57228>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9784927>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.88988>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.87288>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0169992>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.10062>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.21041>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.890205>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.2499>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.99196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2579412>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.78253>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.52366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.258876>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.09411>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.921715>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1723924>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.72923>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.645645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0835857>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.917625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.77732>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0835857>}
```



```
e=(), dtype=float32, numpy=4.1403074>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.01701>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.40378>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.613233>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.24229>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.52525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7170339>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.993904>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.00526>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9886475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.13762>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.11764>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.01998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.37357>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.4572>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9163768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.5255>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.50488>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0206122>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.41917>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.148506>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.270663>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.914764>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.906296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.008465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.76729>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.98125>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.78604>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.18272>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.09577>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0869474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.23564>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.18308>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.052559>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.59206>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.613396>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9786599>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.23038>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.27363>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9567475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.195854>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.098305>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0975466>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.66557>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.59992>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0656543>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.46414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.75213>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7120113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.34824>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.68322>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.665025>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.151665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.99818>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1534896>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.802216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.62904>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.173169>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.68531>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.50241>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1829004>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.30642>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.20806>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0983553>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.59723>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.5126>, 'kl_loss': <tf.Tensor: shape=
```

```
((), dtype=float32, numpy=4.0846267>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.63073>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.44752>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1832137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.4424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.18365>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2587543>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.08285>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.896645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1862063>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.52187>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.74172>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7801483>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.94351>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6930568>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.289085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.21553>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0735574>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.31965>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.25569>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0639544>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.75837>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.669945>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.088427>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.60672>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.61986>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9868584>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.174095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.110435>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.063662>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.078156>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.26601>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8121517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.040276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.42328>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6169982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.263>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.39258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8704262>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.25008>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.32856>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.921515>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.49834>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.48727>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0110664>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.44811>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.363014>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0850987>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.91351>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.92561>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9878979>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.58266>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.73993>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8427315>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.04467>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.18836>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8563113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.3376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.29262>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.04498>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.13803>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.00325>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1347833>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.39977>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.23749>, 'kl_loss': <tf.Tensor: shape=()
```

```
=(), dtype=float32, numpy=4.162286>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.02425>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.123344>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9009051>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.91742>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.082344>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8350787>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.744415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.71757>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0268517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.43592>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.486786>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9491363>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.88376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.07625>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8075116>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.81466>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.21689>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.597774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.34406>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.59842>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7456455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.39213>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.62048>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7716472>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.22209>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.14195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.080142>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.103226>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.07053>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.032691>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.499596>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.30566>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1939363>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.689896>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.49248>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1974144>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.92688>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.78186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1450186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.64165>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.581696>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0599504>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.415504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.49838>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9171252>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.13533>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.44378>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6915505>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.92618>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.761734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.164442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.33629>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.09073>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.245556>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.31126>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.909996>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4012613>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.54891>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.39929>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1496234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.161606>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.197525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9640827>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.762436>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.53637>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9640827>}
```

```
e=(), dtype=float32, numpy=4.2260647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.72289>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.27873>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4441605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.48155>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.27194>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2096066>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.769196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.62306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1461353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.00838>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.944595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.063781>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.35173>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.31559>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.036139>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.09224>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.02396>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.068286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.50727>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.97849>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5287814>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.8096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.96495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8446507>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.497604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.546486>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9511178>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.87473>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.003395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8713353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.305954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.33622>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9697337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.65515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.76682>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.888332>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.02969>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.15246>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8772392>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.94117>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.09529>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8458762>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.97944>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.2038>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7756417>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.33385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.36934>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9645069>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.459595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.64616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8134365>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.52587>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.66361>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8622565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.86878>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.89478>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.973999>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.63691>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.63309>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0038223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.53308>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.50002>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0330567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.389015>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.34284>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0330567>}
```

```
e=(), dtype=float32, numpy=4.0461717>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.536064>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.63239>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9036736>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.05605>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.84345>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2126017>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.93403>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.64651>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2875185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.002495>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.804375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.198117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.33549>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.158936>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1765513>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.62097>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.628525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9924507>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.91285>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.02311>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8897393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.05797>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.22121>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8367603>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.14926>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.33209>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8171666>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.0273>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.15316>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8741403>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.02028>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.19358>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.826695>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.852036>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.84197>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.010065>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.84057>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.75936>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0812097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.23882>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.45709>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7817314>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.53229>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.69618>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8361015>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.89918>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.92392>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9752579>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.522995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.40247>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.120523>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.62205>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.67853>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9435182>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.78899>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.85957>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9294143>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.681725>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.80518>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8765442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.384384>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.65638>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7280014>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.23235>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.4496>, 'kl_loss': <tf.Tensor: shape=
```

```
((), dtype=float32, numpy=3.7827525>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.58419>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.81847>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7657228>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.262344>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.24692>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0154305>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.56535>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.55261>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.012742>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.31082>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.455574>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.855245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.5504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.71086>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8395412>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.35804>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.22338>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1346564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.52337>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.31064>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.212728>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.29982>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.15559>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1442366>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.0331>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.99787>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.035226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.4657>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.38826>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0774393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.38247>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.35636>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0261087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.50902>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.52468>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9843335>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.20663>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.35058>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8560493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.437515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.42561>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0119023>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.594376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.35022>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.244157>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.09123>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.81415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.277087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.3777>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.4965>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8812041>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.04106>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10294>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9381156>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.99874>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.10126>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8974838>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.80361>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.953316>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.850294>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.83033>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.0735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7568314>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.44238>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.43637>, 'kl_loss': <tf.Tensor: shape=()
```

```
=(), dtype=float32, numpy=4.006009>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.45951>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.54326>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.916251>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.14912>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.90238>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2467318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.22746>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.187614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0398493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.34925>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.791595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5576522>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.054474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.3133>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7411728>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.537445>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.633156>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9042869>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.42401>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.47498>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9490314>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.045265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.99822>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0470414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.577095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.81201>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7650802>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.340164>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.59932>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7408462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.83184>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.96252>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8693237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.42082>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.540665>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.880156>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.11472>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.2555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.859225>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.51895>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.351654>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1672983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.33952>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.091606>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2479143>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.42775>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.76361>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6641402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.82607>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.375465>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4506092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=95.07653>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.197975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8785522>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.96169>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.8021>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1595883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.25645>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.33743>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.919016>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.16537>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.018135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1472306>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.33563>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.727554>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1472306>}
```

```
e=(), dtype=float32, numpy=4.6080756>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.433205>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.48506>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.948145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.31392>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.46796>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8459656>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.400085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.3664>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0336823>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.81686>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.533226>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2836294>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.51382>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.73309>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.780722>}
Epoch 4/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.425476>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.46187>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9636104>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.62632>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.57198>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.054335>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.10024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.20061>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8996334>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.88551>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.04907>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8364441>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.35198>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.502464>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8495212>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.58716>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.530014>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.057142>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.22128>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.18172>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0395637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.17273>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.20517>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9675632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.90166>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.290596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.611061>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.68677>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.69803>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9887364>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.09483>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.86254>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.23229>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.69218>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.81061>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8815682>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.52408>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.625145>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8989296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.46506>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.6071>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8579552>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.253265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.32896>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9243095>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.23666>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.12755>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1091104>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.95034>, 'reconstruction_loss':
```



```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.97122>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.9791214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.11004>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.1688>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.9412384>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.45865>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.44964>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=4.009008>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.99324>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94447>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=4.048766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.172646>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.14196>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0306826>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.79027>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.76874>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=4.0215273>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.589424>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.51501>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.074416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.55052>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.74385>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.8066697>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.68878>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.96656>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.72222>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.206116>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.4295>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.7766166>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.772064>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.82597>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9460893>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.58682>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.75312>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.833699>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.41183>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.20448>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=4.2073455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.700134>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.76904>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.931089>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.63997>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.765205>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.874766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.69939>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.72962>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.9697673>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.63741>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79512>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.8422952>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.308304>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.409424>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.898882>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.803955>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.92822>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8757331>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.17819>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.99964>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=4.178554>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.75478>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.41221>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=4.3425765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.120346>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.896805>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.22354>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.295>, 'reconstruction_lo
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=76.14131>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.1536875>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.96985>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.949066>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.020784>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.46522>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.42784>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0373774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.074066>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.98544>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0886226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.56982>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.36804>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.2017775>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.99867>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.95851>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.040164>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.80734>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.79583>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0115156>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.00061>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.12192>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8786945>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.463844>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.34409>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.1197495>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.28667>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99187>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.294796>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.533325>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.40432>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.1290045>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.80178>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.81147>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.990312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.01748>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.087074>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9304047>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.52925>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74169>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7875626>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.254906>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.728584>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.526318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.3381>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=79.730835>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6072602>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.30457>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.350464>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9541087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.439064>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.730156>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.708908>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.10986>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.520935>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.588932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.52779>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.138725>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3890579>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.828705>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.17761>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6510894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.02681>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.1382>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.888607>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.53627>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.561104>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9751637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.31297>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.09269>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2202845>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.75838>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.49325>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2651315>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.08905>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.17935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9096973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.97997>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.07382>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.90615>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.01314>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99402>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.019117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.773476>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.36417>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4093075>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.38186>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.09441>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2874475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.591995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.528175>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0638213>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.81044>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.90201>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9084332>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.693665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.80003>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8936334>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.54152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.91798>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6235397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.99605>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.280495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7155495>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.82451>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.903984>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9205258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.296326>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.26875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.027571>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.3426>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.31161>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.030992>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.91695>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.07915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8377984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.176155>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.422516>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7536407>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.17582>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.28476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8910604>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.78298>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.83662>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.946363>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.8296>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.522514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.307083>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.0248>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.00001>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0247955>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.29505>, 'reconstruction_loss':
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=75.36482>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.930231>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.37143>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.653015>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.718413>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.051544>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.056656>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.9948921>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.64899>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.563>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.0859833>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.970184>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.9106>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0595827>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.43511>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.408295>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.026815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.326805>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.41188>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9149232>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.046364>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.18791>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8584533>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.941765>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.01574>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.926028>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.77406>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.81169>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9623713>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.250755>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.300186>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.9505692>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.3795>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.3943>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.9852004>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.966125>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.96897>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9971535>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.66249>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.62241>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0400763>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.35226>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.32263>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.029622>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.20765>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.20905>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.998593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.031425>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.99257>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0388565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.876595>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.99731>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.879285>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.16292>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.36877>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7941551>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.28394>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.14074>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.143207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.39004>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.2391>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.150937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.50037>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.47659>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0237722>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.03599>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.063225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9727654>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.60493>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51489>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.090033>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.84508>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.997635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8474388>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.93973>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.30815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6315765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.239204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.29833>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9408715>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.82565>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.74888>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0767765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.318535>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.911835>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.4066973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.756935>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.5284>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.228541>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.31633>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.389435>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9268982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.409584>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.81604>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5935452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.820564>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.804924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0156374>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.46116>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.38207>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.079088>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.2006>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.342445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8581536>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.985565>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17066>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8149018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.04028>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.2771>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7631843>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.91802>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.22277>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6952546>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.68461>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.96558>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.719022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.76179>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.91796>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.843827>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.96921>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.08989>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8793194>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.185165>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.43944>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7457283>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.675995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.64755>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0284452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.63881>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.56307>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.075733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.75849>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.56307>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.075733>}
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.71628>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.042215>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.613914>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.649704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9642072>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.497696>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.58916>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.908537>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.71527>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.75305>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9622169>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.226845>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.29507>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9317772>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.39552>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.59216>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8033624>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.39649>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.51579>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8807006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.00102>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.13907>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8619514>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.77446>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.81506>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9593978>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.21843>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.29581>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.922625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.82441>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.0815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7429128>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.612045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.016205>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5958443>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.70971>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.00948>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7002273>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.87496>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.14123>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7337356>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.658005>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.650856>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.007148>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.867714>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.9194>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9483082>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.19302>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.187874>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0051527>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.62345>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.885895>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7375557>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.47962>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.71718>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.762445>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=91.04237>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.185684>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8566928>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.03406>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.1296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9044585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.52957>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.663246>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8663292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.12185>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.35141>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.770438>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.45375>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.71564>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.738112>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.31239>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.30742>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.004975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.66282>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.48186>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.180964>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.64338>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.5672>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.0761795>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.92406>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.83964>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.08442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.43681>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.226265>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2105474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.028046>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.72381>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.304241>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.693>, 'reconstruction_lo
s': <tf.Tensor: shape=(), dtype=float32, numpy=79.36097>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.3320317>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.946976>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.94293>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0040464>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.51079>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.67227>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8385193>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.77651>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.88179>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8947227>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.29603>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.33836>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9576652>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.94041>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.95536>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.985049>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.97401>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.1417>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.8323028>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.92289>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.13124>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7916493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.80366>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.056786>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7468688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.472786>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.646736>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.8260467>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.32786>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.40751>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9203477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.73493>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.67449>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0604434>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.10362>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.27715>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8264706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.45494>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79564>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6593032>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.4613>, 'reconstruction_lo
```

```
ss': <tf.Tensor: shape=(), dtype=float32, numpy=75.27638>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.184922>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.18664>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.974014>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2126203>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.80627>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=86.72315>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0831137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.69877>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.77073>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.928037>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.158775>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.33782>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8209548>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.155846>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.274666>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.881183>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.102615>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.07353>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0290856>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.82753>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.65312>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.1744094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.39469>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.31332>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0813746>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.18883>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.084366>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.1044607>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.07762>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.00311>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0745063>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.90723>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.99384>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.913384>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.39931>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.32333>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.075976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.299065>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.31245>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9866161>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.79693>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.157166>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6397662>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.59057>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.791595>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7989755>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.34109>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.541664>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7994199>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.18853>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.3299>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.858625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15276>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.40122>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7515445>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.69069>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.81239>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8782997>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.869255>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96737>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.901883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.22117>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.32745>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8937135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.865746>, 'reconstruction_
```



```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.89597>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9697704>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.44121>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65053>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.790678>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.68251>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.00467>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.677845>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.58944>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.83018>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.759262>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.57538>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.77475>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8006253>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.570206>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.52778>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.042426>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.5039>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=70.30734>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.196556>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.17092>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.166695>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.004224>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.32759>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.325935>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0016522>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.53598>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.83677>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6992123>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.110176>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.37918>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7309966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.00962>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.93166>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0779543>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.06011>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.127594>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9325175>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.10237>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.362724>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.739643>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.90623>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15299>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7532356>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.031555>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.50053>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5310287>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.10611>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.207214>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.898899>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.64373>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.60079>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0429406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.66001>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.863>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.7970092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.21466>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.269295>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9453666>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.88149>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=84.842735>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.038759>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.22283>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.20324>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0195932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.550064>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.61595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9341092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.533714>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.750084>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7836273>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.9036>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.22859>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.675013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.97774>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.3716>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6061416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.477486>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.53433>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9431503>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.322815>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.287895>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0349207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.19218>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.188385>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.003794>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.22032>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.26505>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.955265>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.82417>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.89363>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9305406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.94992>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.032265>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9176545>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.98645>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.19343>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.793019>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.516136>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.63613>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.880003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.54208>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.73798>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8041024>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.45675>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.967514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.489235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.71906>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.90694>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8121247>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.33641>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.32102>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0153866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.901>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.00829>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8927052>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.72159>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.01994>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.701643>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.6403>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.10375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5365443>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.89739>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.322105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5752902>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.03072>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.406906>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6238174>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.90877>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.918564>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9902024>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.19768>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.24604>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.9516392>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.3735>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=76.2837>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.089797>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.555885>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.77754>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7783465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.33639>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.903625>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4327655>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.68196>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.95133>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.730629>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.04751>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.292564>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7549431>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.67229>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.83331>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8389726>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.30763>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.54678>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7608504>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.92885>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.05935>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.869501>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.7337>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=76.892494>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.841207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.36898>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.74316>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.625827>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.80429>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.127396>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.676894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.22345>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.14623>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0772195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.395065>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.495964>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.8990982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.52937>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.56571>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9636574>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.07314>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.1365>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.9366486>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.70017>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.7485>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.9516785>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.578255>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.513794>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=4.0644636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.07374>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.2722>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.801538>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.091606>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.45293>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6386826>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.92067>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.20548>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7151833>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.109344>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.11126>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9980817>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.87892>, 'reconstruction_l
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=73.84419>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.034725>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.99297>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.12123>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8717449>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.70626>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.92581>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7804523>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.490654>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.756165>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.734492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.485794>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.9365>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5492966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.417404>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.57675>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.840653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.34362>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.39353>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9500918>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.12036>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43996>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6804047>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.983246>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.13853>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8447216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.574455>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.748985>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.8254719>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.324615>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.38488>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9397354>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.46212>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.521324>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9407964>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.567375>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.61818>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9491944>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.39078>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.55491>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8358693>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.55272>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.70799>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8447235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.97151>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.07719>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8943245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.045425>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.36865>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6767724>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.41535>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.7181>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.6972516>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.21279>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.25292>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9598663>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.41567>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.44665>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9690254>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.26722>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.43852>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8287003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.93193>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.1106>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.821328>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.30278>, 'reconstruction_l
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=81.73729>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.565492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.32274>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.89592>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4268208>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.77362>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.556755>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.2168694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.21061>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.0093>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.2013063>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.32181>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.49816>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8236473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.99606>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.08364>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9124198>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.843155>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.75268>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0904794>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.42144>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.33984>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0815935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.14938>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.249466>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8999138>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.42174>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.48546>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9362788>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.367165>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.27569>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0914793>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.29148>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.25515>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0363336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.78715>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.92666>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8604894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.84857>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.12451>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7240634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.66476>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.79595>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8688054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.91943>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.0183>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.9011283>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.690865>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.8921>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7987664>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.79419>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.05685>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7373443>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.44072>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.623665>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8170521>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.747795>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.989716>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.7580795>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.86238>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.11935>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7430325>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.353226>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.45783>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8953922>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.33208>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.55026>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.7818184>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.39718>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.56543>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8317504>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.41502>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.677765>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.737259>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.0284>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.02142>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.0069747>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.349594>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32842>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.02117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.99179>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.028595>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.963197>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.636475>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.76485>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8716254>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.621635>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.704636>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.9169998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.43687>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.94569>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4911828>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.84979>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.27676>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5730357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.5189>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=75.728485>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.790416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.64013>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.82544>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.814689>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.0394>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=75.27748>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.7619205>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.97883>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.11161>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8672187>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.948395>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.88813>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0602655>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.88189>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.04119>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.840695>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.7593>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=77.11402>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.6452794>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.8899>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99034>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.899559>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.74472>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.85825>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.886465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.10507>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.2512>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.8538747>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.85481>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.00481>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8500028>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.37013>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.37649>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9936461>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.639>, 'reconstruction_los
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=73.696175>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.9428248>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.03386>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.41914>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6147156>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.940704>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.38855>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5521576>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.40952>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43853>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9709961>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.629265>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.65153>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9777398>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.365906>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.36256>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0033503>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.56938>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.60869>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9606965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.2758>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=79.32853>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.9472706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.57995>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.59524>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9847121>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.98002>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.96175>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.018274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.167854>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.2208>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9470527>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.20577>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.57245>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.633325>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.85122>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27816>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5730596>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.24707>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.328545>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9185243>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.29306>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.4081>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.8849654>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.62171>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.73424>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8874729>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.361015>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.5516>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8094153>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.13953>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27339>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8661342>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.427155>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.76274>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.664414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.91155>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.40527>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5062783>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.84347>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.11932>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7241447>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.43135>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.6229>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.8084474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.3518>, 'reconstruction_lo
```

```
ss': <tf.Tensor: shape=(), dtype=float32, numpy=76.46297>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.8888326>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.10882>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.18062>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9282024>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.78408>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94673>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8373475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.61618>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.89127>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7249084>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.8743>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=79.14794>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.7263565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.71794>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.822556>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8953824>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.67782>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.688354>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9894652>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.004486>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.98287>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0216126>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.80269>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.00928>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.793408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.46408>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.72774>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.736342>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.9209>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=77.04716>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.8737426>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.01728>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.18558>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8317056>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.45348>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.76329>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.690194>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.631226>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.133194>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4980292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.25357>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.651>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.602567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.85949>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.21707>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.642419>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.804344>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.89458>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9097695>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.70079>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.824646>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8761418>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.18465>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.18851>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9961421>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.64424>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.65247>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9917653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.76912>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.802956>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9661617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.73465>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.835846>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8988075>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.11435>, 'reconstruction_l
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.31775>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7966003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.918785>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.31225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6065402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.902275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.8903>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0119753>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.25394>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.180786>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.073147>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.77147>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.55428>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.217183>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.41329>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.41732>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.995975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.75605>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.924355>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.831697>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.54486>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.51896>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0259004>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.49399>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.26697>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.227017>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.99495>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.98368>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.011272>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.40108>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.44198>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9590957>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.842804>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.94833>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.894467>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.16141>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.30169>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8597195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.90152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.02469>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8768322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.51158>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.09077>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4208121>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.290184>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.6132>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6769853>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.978355>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.222206>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7561526>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.50317>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.80154>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.701629>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.84351>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.02482>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.818697>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.21216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.46174>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7504234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.5788>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.82888>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7499173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.696945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.97549>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7214584>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.69066>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.82888>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7499173>}
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.02405>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.666613>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.20881>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40237>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8064408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.42434>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.73153>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6928105>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.381805>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.64525>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7365532>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.73969>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.89108>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8486085>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.18318>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.29955>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8836293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.18961>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.3328>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.85681>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.582306>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72319>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8591175>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.40011>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.64023>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7598767>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.77963>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.733345>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0462904>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.156906>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05561>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.1012926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.76506>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.70505>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0600142>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.037506>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.00973>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.027776>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.99999>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.14668>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8533123>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.79931>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.0439>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.755408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.181046>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.50121>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6798337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.135765>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.42879>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7069812>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.60468>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.8542>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.7504787>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.05778>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.37715>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6806233>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.958755>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.14692>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8118355>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.750786>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.874725>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.8760638>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.040535>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.39089>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6496453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.211266>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.50154>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7097259>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.735016>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.9186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8164146>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.40949>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.479614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9298813>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.76608>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.00462>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.761456>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.62287>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.83759>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7852776>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.77558>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.04338>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7322013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.24091>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.63588>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.605032>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.05869>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.360504>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6981864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.42788>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.76769>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.66019>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.958466>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.080124>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.878344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.04898>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.183136>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8658433>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.14112>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.41824>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7228787>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.20207>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.49627>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7058022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.35309>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.408356>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9447327>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.4369>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43042>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.006479>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.381775>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.463615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9181557>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.65519>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.78321>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8719802>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.1491>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.25123>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8978744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.48461>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.66724>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.817376>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.387794>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.611626>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7761703>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.2268>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.5623>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6644988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.20912>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.39749>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.811627>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.67431>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.6511>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.0232077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.08081>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.03848>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.042327>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.290085>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.586494>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.703588>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.90161>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.13269>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.768922>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.92519>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.19481>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7303834>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.40142>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.6994>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.7020156>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.51493>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89941>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6155276>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.07942>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.20925>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8701699>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.384674>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.599>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.7856739>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94659>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.915306>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.0312815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.08079>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.2083>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.8724906>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.57451>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.127106>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4474018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.98832>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.37709>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6112294>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.32089>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.60535>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.715547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.38188>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.60149>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7803962>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.86926>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.00396>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8653023>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.65106>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.02047>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6305892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.22333>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.59872>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6246078>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.48143>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.725334>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.756092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.153496>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.39811>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7553875>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.696075>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.95174>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.744336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.30255>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.30011>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.002439>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.97853>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.941635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0368986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.27413>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.7305>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.543631>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.91424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.56806>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3461785>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=92.40824>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.65498>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.753257>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.79577>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.82042>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9753518>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.90615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.14451>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7616394>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.229485>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.293625>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9358563>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.164024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.83196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.332059>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.57942>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.98069>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.598735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.35196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.66733>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.684634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.5212>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.693596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.827607>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.39466>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36713>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.027535>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.789345>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.1046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6847432>}
Epoch 5/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.48365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.70643>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7772202>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.282364>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.4164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8659637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.026215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.26059>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7656274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.687386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.96759>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7197978>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.99287>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.24452>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7483437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.600365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.705284>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8950794>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.17456>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.3186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8559566>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.27963>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.45057>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8290596>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.06817>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.56551>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5026562>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.793594>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.95903>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8345628>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.428566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.39629>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0322723>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.48349>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.71588>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7676055>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.2984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.506645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7917588>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.512024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.77961>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7324104>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.18085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.40171>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.779134>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.643265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.71452>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9287453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.09858>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.284485>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8140922>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.79075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.96763>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8231232>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.321625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.41456>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9070687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.01667>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.088165>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.928505>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.15243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.24106>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.911368>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.56933>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.652985>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9163413>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.82557>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.90327>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9222991>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.41048>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.72227>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.688212>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.66762>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.04624>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6213799>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41057>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.73483>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.675733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.58653>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.73309>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8534398>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.69395>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.95271>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7412338>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.13599>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.074715>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0612755>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.636765>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.84393>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7928283>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.831566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.11413>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7174377>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.69614>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.884514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8116202>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.80251>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.08981>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7126968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.26209>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.506386>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.75571>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.847015>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.10508>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7419364>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.92486>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.94366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.981203>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.225395>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.08722>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1381774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.56276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.50119>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0615683>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.16574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.190125>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9756172>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.071205>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.24615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8250566>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.209145>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.34024>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8689048>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.01652>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.1113>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9052186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.629074>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.646324>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9827523>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.98662>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8268638>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.7286>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.90393>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8246655>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.90401>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.19776>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7062423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.63122>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.71177>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9194512>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.44438>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.4098>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.034581>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.49403>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.59168>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9023545>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.27135>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.476875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.794469>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.83799>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.076065>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7619278>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.20058>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.5621>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6384742>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.4767>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05153>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4251685>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.02506>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.55176>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4733043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.36956>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.60979>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7597766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.58583>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.993256>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5925713>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.92916>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.43524>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4939218>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.31168>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.998795>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3128858>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.64606>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.11903>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5270195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.62117>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.88634>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7348347>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.67323>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.87262>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8006134>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.44705>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.447876>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9991746>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.73>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.697876>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=4.032127>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.1122>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.37861>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.7335923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.00114>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.25979>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.741346>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.40399>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.58445>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8195438>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.48317>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.354515>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.1286573>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.399796>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.3296>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0701957>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.57768>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.67292>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9047656>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.69254>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.91969>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7728474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.660416>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.901924>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.7584884>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.30392>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.76258>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.541338>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.02903>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.40904>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.619986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.47601>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.675064>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8009505>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.06237>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.16456>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8978126>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.19239>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.28185>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9105353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.676414>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.93373>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7426867>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.894806>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.244385>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.6504211>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.24926>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.48666>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7626026>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.25288>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.44718>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.805694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.84219>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.74192>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.100274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.35204>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.49575>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8562913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.29686>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.519356>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7775006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.514>, 'reconstruction_lo
s': <tf.Tensor: shape=(), dtype=float32, numpy=76.929085>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.584917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.39855>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.61288>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7856784>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.83182>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.95825>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8735688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.206696>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.35116>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8555386>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.78313>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94617>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8369565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.66654>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.928986>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7375565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.036194>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.34579>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6904054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.3977>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.649704>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.747993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.19133>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.40354>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7877846>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.61962>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.848885>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7707393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.677414>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.8891>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7883124>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43705>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.614395>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8226542>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.80123>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.92162>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.879605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.34114>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.45934>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8817983>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.19391>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.38723>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8066773>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.9373>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.08615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8511474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.60243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.850975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7514558>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.04343>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.36047>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6829505>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.59674>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.62934>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.967403>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.78702>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.818>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9690177>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.63336>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.74258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8907878>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.9976>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.16103>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8365645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.89889>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.98214>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9167466>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.91839>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.20751>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7108734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.07243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.556564>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.515866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.35043>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.590195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7602382>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.74965>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.849174>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9004753>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.71505>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.507416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2076354>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.94174>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.926476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0152626>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.35703>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.599106>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.75793>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.173645>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.71601>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4576354>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.20921>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.36292>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8462868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.067955>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.15173>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.916223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.43796>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.727806>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7101517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.250244>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.56776>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6824875>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.15214>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.49513>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6570053>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.175385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.644196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5311882>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.03379>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.460556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5732312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.03765>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.35484>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6828094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.79103>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.04464>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.746389>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.29915>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.65453>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6446137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.16002>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.31955>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8404682>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.807556>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94326>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8642964>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.05286>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.204956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8479028>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.65701>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.87562>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.781395>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94829>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.21269>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7355971>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.97424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.1566>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8176427>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.46632>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.67636>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7899547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.292>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.58724>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7047582>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.31244>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.56596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7464721>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.15831>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.44346>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7148526>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.63441>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.8551>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.779307>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.313736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.551994>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.761741>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.73033>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.10834>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6219933>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.26575>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.75415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5115929>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.85351>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.2693>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5842037>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.078224>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.46475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6134732>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.86117>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.049614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8115554>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.09417>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.32148>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7726884>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.45074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8316956>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.618805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.01534>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6034584>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.62941>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.990585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6388245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.13507>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.42055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.714526>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.25406>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.51654>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7375221>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.84083>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.12362>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.71721>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.17082>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.53929>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.631532>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.44595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.83285>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6131039>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.29508>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.45468>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.840404>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.92243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.943306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.979126>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.13069>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.220634>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.910054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.24846>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.3487>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8997605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.66455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.66838>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.99617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.03877>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.90661>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.132165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.36763>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.19338>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.174244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.05019>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.206665>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8435254>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.77223>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.09295>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6792846>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.264984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.54105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.723928>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.579544>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.76684>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8127022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.220924>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.398575>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.822348>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.18672>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.48116>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.70556>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.272316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.59451>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6778054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.894745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24155>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6531994>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.45356>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.713356>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7402031>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.20822>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.39755>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8106704>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.800804>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.87969>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9211125>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.53551>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.8063>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.72921>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.72093>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.13928>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5816517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.87504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.848404>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.026632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.56996>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.53276>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0372>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.30806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.337395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9706612>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.72718>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.9324>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7947762>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.36152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.66228>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.699244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.177025>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.40515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7718735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.014984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.11679>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8981965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.99716>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.98953>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.007627>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.48655>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.55807>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9284852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.54774>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.59076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9569764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.35471>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.41826>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.936454>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.88359>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0902>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7933908>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.66227>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.71482>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9474487>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.606674>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.75782>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8488514>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.89207>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.34746>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5446117>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.49997>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.81497>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.684995>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.459114>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.78749>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6716208>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.63221>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.902214>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.729998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.672615>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.05497>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6176467>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.82185>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.07694>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7449138>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.287766>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.516045>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.7717195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.0643>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=77.2967>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.7676048>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.90047>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.06937>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.831099>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.03849>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.37184>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6666508>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.11374>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.4993>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.6144385>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.70282>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.030495>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6723228>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.49906>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.79008>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7089837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.44316>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.54655>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8966172>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.903534>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.88832>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.015209>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.584595>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.73365>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.850947>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.39871>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52987>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8688405>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.64245>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.06749>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.574962>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.26476>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.643265>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.621497>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.2257>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.33402>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.8916798>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.31999>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.54444>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7755516>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.54309>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.9347>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.6083884>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.97167>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.35003>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.62164>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.212654>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.78552>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4271286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.25339>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.531784>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.721606>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.129486>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.29696>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8325245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.90481>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.25659>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6482186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.62775>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.870544>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7572021>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.191414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.34132>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.850099>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.6386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.774956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.863645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.68086>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.8714>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8094666>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.052826>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36862>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.684208>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.8365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.233635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6028664>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.22197>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.6729>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5490704>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.90732>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.08578>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.82154>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.726845>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.80267>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9241695>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.75077>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.85564>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8951306>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.63153>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.76675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8647819>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.04901>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21812>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.830892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.28601>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.45378>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.832232>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.29987>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.58243>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7174487>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.53595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.7382>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7977555>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.66837>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.95175>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7166247>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.69388>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.26639>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.427489>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.06922>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.37738>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6918397>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.98924>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.13692>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8523235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.36066>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.60148>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7591789>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.86588>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.297775>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5681102>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.19255>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.7784>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4141552>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.245705>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.78396>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4617462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.369644>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.851654>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.51799>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.40165>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.542465>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8591855>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.52776>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7215>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.8062694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.569435>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.65437>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9150643>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.35026>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.722984>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6272702>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.75108>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.41308>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3380089>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.84985>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.24432>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6055274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.44639>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.83801>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6083786>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.80656>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.09339>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7131653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.57548>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.91283>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6626534>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.145355>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.41674>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7286115>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.023834>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.32303>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7008033>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.61203>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.1049>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5071297>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.75474>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.18055>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5741858>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.4199>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.48805>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.9318497>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.79921>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.04844>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7507706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.52617>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.73797>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7882018>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.31503>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.532394>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7826371>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.03725>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.2531>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.7841492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.11247>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.22197>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8905017>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.08027>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.39767>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6826038>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.521355>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.9808>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5405593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.98352>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.380974>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6025429>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.507835>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.65328>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8545551>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.28682>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.403336>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8834877>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.15696>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.4109>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.7460637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.83101>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.158844>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6721642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.05131>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.41657>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6347365>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.8037>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=76.34219>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.461513>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.04386>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.32928>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.714585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.02206>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.2325>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.789556>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51048>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.936714>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.573771>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.46124>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.76077>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7004712>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.625946>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.90375>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.722199>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.60076>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.81299>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7877724>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.731705>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.94232>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7893806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.98864>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.17407>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.81457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.87187>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.142426>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7294464>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.926254>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.19268>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7335763>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.35224>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.56393>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7883155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.120316>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.504715>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.6156025>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.36277>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.732414>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6303535>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.62836>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.77226>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8560948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.72273>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.84455>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8781776>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.56482>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.81132>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7535045>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.07487>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.33061>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7442539>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.10072>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.56116>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5395622>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.45463>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.04317>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.411462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.87666>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.77001>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.1066527>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.08377>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.009056>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=4.074711>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.67683>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.91682>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.760009>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.35581>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.5488>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.807013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.471436>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.536766>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.934668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.838486>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.92116>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9173248>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.40393>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.65662>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7473168>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.81525>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.0493>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.7659423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.80115>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.89812>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.9030292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.70619>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.820274>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8859196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.07878>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.35322>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7255597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.08702>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.48146>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.605564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.60337>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.86904>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7343307>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.773964>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.01384>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7601266>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.90431>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.2493>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.655016>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.281555>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.66658>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6149743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.545616>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.86174>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6838727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.07656>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.45422>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6223342>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.39521>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.79627>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.598941>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.28013>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.51681>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.763324>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.79113>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15878>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.632349>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.56084>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.85264>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7082012>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.67934>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05394>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6254005>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.34865>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.508545>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8401043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68401>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.83785>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8461585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.53661>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.72838>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8082333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.98763>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.2557>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7319322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.21405>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.46525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.748806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.46489>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.078224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.386664>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.2232>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.75101>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4721901>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.94404>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.276825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6672127>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.14379>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.47102>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6727707>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.331894>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.68777>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6441288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.0852>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.33361>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7515893>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.96028>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.026436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9338467>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.21953>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.49987>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.719654>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.95697>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.40379>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5531745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.007904>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.21388>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.794023>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.97811>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.18795>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7901623>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.40435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.653076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7512765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.1487>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.413765>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7349331>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.54165>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.68002>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8616245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.922104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.116455>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8056462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.512955>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99722>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.515728>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.13355>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.67567>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4578846>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.75552>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.92946>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.826067>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.193634>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.3858>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.807827>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.87659>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.042694>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8338935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.795364>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99644>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7989259>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.377045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.60804>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7690063>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.79124>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.98162>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.809613>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.23804>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.402504>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.835537>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.73121>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.95609>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7751174>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.79334>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.29125>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5020928>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.51097>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.07193>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.439043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.96438>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.20939>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7549903>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.735>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.00416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7308438>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.873604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.120575>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7530296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.9692>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.25797>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.711226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.61674>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.868126>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.74861>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.402336>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.81891>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.583426>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.48657>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.04572>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4408517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.21965>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.57823>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.641416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.76288>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.03647>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7264106>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.82815>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.01726>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.810891>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.613106>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.77413>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8389735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.24377>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.49922>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7445474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.25654>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.605225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6513133>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.364235>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.71491>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6493251>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.00474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.20088>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8038535>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.83772>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.95982>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8778965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.39169>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.49473>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.896967>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.28216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.58295>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6992111>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.84645>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.19689>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6495557>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.3458>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.59399>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7518184>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.16462>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.43645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7281716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.92009>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.329994>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5900922>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.975>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.55845>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4165478>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.27784>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.78161>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.496231>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.11539>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.57882>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.536567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.94333>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.19183>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7514985>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.07931>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.34169>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7376163>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.5367>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.713715>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8229814>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.13288>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.31912>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8137612>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.7133>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.92612>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7871838>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.39794>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.663956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7339892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.47393>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.84337>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6305592>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.16297>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.69556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4674156>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.01689>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.203575>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8133187>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.5652>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.699356>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.865841>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.40733>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.40762>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9997096>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.65217>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85037>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8017983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.108055>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.44932>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.658738>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.15183>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.3345>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.817327>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.89862>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.88668>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.011938>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.37537>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.56222>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8131452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.93458>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.14825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7863305>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.16665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.43845>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.728196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.49094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.7888>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7021298>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.73513>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.03047>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7046604>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.06952>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.74782>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3216999>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.76363>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.208786>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.554847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.231>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.59971>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6312923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.975784>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.39108>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5846982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.02332>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.33383>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.689489>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.80291>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.19222>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6106846>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.82504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.20725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.617789>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.13371>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.51149>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6222217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.90664>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.30753>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5991085>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.86069>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.16296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6977317>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.532326>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.93705>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5952744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.008675>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.39076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6179123>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.08142>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.37307>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7083542>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.56791>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.81898>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7489312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.61711>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.88187>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.735244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36078>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.62359>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7371917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.81191>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.15261>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6592984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.09922>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.19739>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9018333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.04988>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.10455>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9453285>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.176346>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25448>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9218636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.37393>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.48118>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8927522>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.41981>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.69493>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7248778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.165085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.5176>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6474814>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.60493>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.05896>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5459676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.375175>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.799576>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.575602>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.6642>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=77.0364>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.6277976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.54615>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.010574>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5355747>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.39458>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74645>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6481209>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.4431>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=70.73257>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.7105355>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.535194>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.01119>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5240045>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.5512>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.97697>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.574234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.93267>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.27642>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6562524>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.77574>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.02807>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7476745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.23199>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.61607>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6159134>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.84003>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17741>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.662621>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.113045>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.499405>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.613639>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.81631>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.303>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5133033>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.1054>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=79.498665>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6067352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.579605>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.03176>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5478477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.20848>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.445145>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7633395>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.586235>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.80829>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7779434>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.30153>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.64883>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6527019>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.592804>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.94851>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6442971>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.76121>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.91762>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.843593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.871025>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.97626>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.894767>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.9423>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.13089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8114066>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.90734>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.11674>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7906044>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.43369>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.60793>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8257604>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.97162>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.22458>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.747038>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.85284>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.148674>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7041633>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.79316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.20814>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.585022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.49009>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.78453>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7055588>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.4366>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.54791>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8886886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.65652>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.75517>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9013462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.85024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.24708>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6031673>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.269485>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.602806>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6666825>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.61154>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.98396>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6275802>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.67617>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.06062>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6155472>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.03944>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.50322>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5362191>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.60458>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.82315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.781433>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.88947>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.203>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6864724>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.42609>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.54428>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8818047>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.778015>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.024666>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7533462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.35804>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.96901>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3890328>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.40367>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.85523>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5484366>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.957016>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.342804>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6142159>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.98309>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.31579>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6673045>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.501976>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.74947>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7525012>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.268654>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.716835>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5518157>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.816864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.26635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5505173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.90426>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.1967>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7075603>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.56028>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.846634>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7136467>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.05578>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.34962>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7061608>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.84349>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.93476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9087265>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.5755>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.6579>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9176018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.83682>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.3679>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.468924>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.55531>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.25162>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3036995>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=90.46014>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.76499>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6951423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.43646>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.55008>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8863864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.527084>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.82782>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6992652>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.67217>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.82506>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8471165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.46225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.306946>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.1553016>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.426605>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.02742>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.399188>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.90132>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.308266>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5930564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.9132>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.184494>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7287052>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.45746>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.58729>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8701725>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.7403>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.14961>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5906885>}
Epoch 6/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.22428>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.56759>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6566918>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.77945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.054344>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6566918>}
```

```
=(), dtype=float32, numpy=3.7251058>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.490326>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.853386>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6369388>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.95296>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.36038>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5925732>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.45451>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.8332>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6213157>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.07129>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.32895>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7423425>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.72096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.01174>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7092242>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.00759>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.287766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7198288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.63548>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.22352>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.411965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.466576>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.77765>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6889248>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.124794>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.26258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8622112>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.99679>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.328064>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6687272>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.77107>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.08779>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6832778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.21969>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59808>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6216018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79709>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.13595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.661139>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.21185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.42587>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.785981>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.858734>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6727357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.335045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.65557>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6794708>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.85279>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.10422>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7485733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.52301>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.76093>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7620735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.59508>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.85264>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7424378>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.9933>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.21092>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7823818>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.56939>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.79602>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7733688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.71005>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.14502>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7733688>}
```

```
=(), dtype=float32, numpy=3.5650368>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.93089>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4965377>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.206825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.68776>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.519067>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.96624>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.26956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6966789>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.06482>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.44702>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6177955>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.61801>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.70753>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.910485>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.08048>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.41746>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6630223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.3482>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.77035>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5778527>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.281624>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.62519>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6564355>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.38518>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.795>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5901802>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.60278>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.97167>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6311092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.21033>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.57495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6353726>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.508545>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.68454>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.824002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.525505>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.560585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9649181>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.652374>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.74907>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9033062>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.52472>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69912>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8255966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.552376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.86475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.687622>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.70503>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.96196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7430701>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.4991>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.7372>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7619042>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.039154>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21205>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8271012>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.71908>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.04615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6729312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.28967>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.59417>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6955063>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.51611>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.92655>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6729312>}
```

```
=(), dtype=float32, numpy=3.5895607>},
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.192535>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41489>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.777652>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10406>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.240425>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8636315>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.20173>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.439674>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7620533>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.81367>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.12783>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6858342>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.41378>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74553>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.668253>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.35196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.779144>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5728126>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10325>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.723>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3802521>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.27401>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.851875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4221344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.01427>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.34446>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6698036>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.292046>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.76804>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5240002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.39502>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.960335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.434681>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.843636>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.568306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.275329>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.30666>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.84571>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4609551>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.08031>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.41773>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6625752>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.36743>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.65475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7126865>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.88637>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.020294>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8660705>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.53025>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.65871>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8715453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.94472>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.328094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6166224>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.51919>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.88118>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.638005>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.95574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.25116>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7045815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.489105>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.53741>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9516945>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.982605>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.06861>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7045815>}
```

```
e=(), dtype=float32, numpy=3.9139926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.227234>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45553>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7717083>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.264656>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59931>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6653442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.51954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6561875>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.86892>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.40919>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4597354>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.996315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.528923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.0854>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.40961>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6757958>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.59821>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.840965>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7572465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.570366>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.80637>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7639918>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.15748>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.51434>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.643132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.4123>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.86082>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5514858>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.158875>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.505745>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6531322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94076>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.258736>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6820252>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.20926>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.264786>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.944471>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.00745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.2782>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7292469>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.926926>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.26564>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6612847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.90483>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.41452>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4903069>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.12799>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.474846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6531448>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.589226>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.86051>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7287126>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.89813>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.177734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.720398>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.55109>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86097>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6901155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.26503>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.66059>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6044374>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.81652>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.2495>, 'kl_loss': <tf.Tensor: shape=
```

```
(), dtype=float32, numpy=3.5670273>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10237>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.490326>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6120415>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.71957>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.06639>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6531727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.429276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.766045>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6632297>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.77466>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.08679>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6878667>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.39443>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.66699>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7274384>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.38371>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.6205>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7632127>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.989265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21728>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7719867>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.66999>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.9685>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.701491>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.38465>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.63227>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7523818>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.01556>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.346565>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6689878>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.451>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.835754>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6152446>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.16553>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.30627>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8592606>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.55323>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.70539>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8478405>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.25511>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.47473>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.780379>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.68412>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.95874>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.72538>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.52526>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.73798>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7872758>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.586945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99141>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5955327>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.64382>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21439>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4294255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.14581>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.50402>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6417909>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.096214>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.335884>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7603288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.352104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.305786>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.046315>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.4631>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59824>, 'kl_loss': <tf.Tensor: shape=
```

```
((), dtype=float32, numpy=3.8648517>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.9019>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.263245>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.638656>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.59392>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.22831>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.365612>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.46211>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.72859>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7335167>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.28863>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.4651>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8235238>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.2861>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.67968>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.606421>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.09506>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.49976>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5953019>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.58884>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.0028>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5860343>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.60589>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.15969>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.446196>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.66461>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.15815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5064583>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.73176>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.13479>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5969682>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.18748>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.52598>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6615016>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.55222>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.965546>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5866776>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.79386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.049515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7443461>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.62822>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86267>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.765552>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.87828>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.13134>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7469425>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.46483>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.78823>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6765976>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.644745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.0124>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.632351>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.645744>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.92685>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7188973>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.904076>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.19101>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7130668>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.9045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.26207>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6424325>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.67426>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.01394>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.660324>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.783035>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.15864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7130668>}
```



```
e=(), dtype=float32, numpy=3.6243935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.16447>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.48819>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6762772>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.949974>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.29905>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6509233>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.01696>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.48841>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5285523>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.43061>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.995>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4356086>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.459984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96163>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4983535>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69109>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.16319>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5278976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.71883>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.03424>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.684587>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.017746>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.39685>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6208923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.244064>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.569176>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6748917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.3241>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4745362>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.31689>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.77954>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5373452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.74594>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.13253>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6134086>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.0594>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.40304>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6563618>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.593956>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.93975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.654208>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.86795>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.3018>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.566143>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.068275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.51436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5539193>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.7946>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.02877>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7658317>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.54096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.663734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8772273>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.92911>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.09613>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8329804>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.17913>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.349075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.830054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.33548>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.896132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.41358>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.35596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.91358>}
```

```
=(), dtype=float32, numpy=4.0576224>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.64667>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.570244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.0764246>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.53548>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.77747>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7580018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.138306>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.53429>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.604016>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.89288>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.243866>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6490142>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.28268>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.55515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.727522>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.83478>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.142075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6927013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.00772>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.419945>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5877755>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.98176>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.43815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.543607>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.43185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.878815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5530288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.08643>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.44741>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6390254>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.70288>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.01047>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6924107>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.42047>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.649605>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7708697>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.07505>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.46234>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6127067>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.278496>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.80225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4762414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.61026>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.77514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8351219>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.09189>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.26095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8309395>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.40831>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.5903>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8180084>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.86102>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.20021>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6608124>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.21402>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.629395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.584626>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.79889>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.144325>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.654564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.28397>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7829185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.59338>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.74025>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7829185>}
```

```
(=(), dtype=float32, numpy=3.8531327>},
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.16451>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.384926>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7795837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.00716>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.18986>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8172965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.83246>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.02381>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8086486>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.5596>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.87032>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6892781>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.39962>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.56374>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8358796>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.12621>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38831>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7379017>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.32434>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.84817>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.47617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.87407>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.26707>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6070008>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.94705>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.36178>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5852761>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.16321>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.55228>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6109352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.557785>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.08026>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4775245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.54756>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94916>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5984054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.00587>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36863>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6372344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.14533>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.508415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6369152>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.52316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.835815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.687346>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.890205>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.353676>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.53653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.72337>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.2172>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5061707>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.28851>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.73835>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5501652>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.022064>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.429794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5922718>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.3079>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.5508>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7571015>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.78628>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.93985>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8464272>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50048>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.773285>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7571015>}
```

```
e=(), dtype=float32, numpy=3.7271988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.18831>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.41841>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.769896>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.3128>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.832016>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.480785>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.80892>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.27559>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.533314>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15176>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.399506>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.752254>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43421>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.76969>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.664519>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.26726>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.74378>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5234768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.67526>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.128525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.546741>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.04591>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.673874>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.372036>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.85861>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.23407>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6245391>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.956604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.23171>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.724891>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.66646>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.09526>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5711982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.348785>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.68903>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6597524>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.93978>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.20321>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7365692>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.38656>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.642586>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7439713>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.916954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.1995>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7174544>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.8288>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.23751>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5912833>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.44189>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.91746>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5244317>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.54979>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.05937>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4904144>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.61481>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.91166>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.703148>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81851>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.042984>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7755306>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.5842>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.850845>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7333565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.46376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.76674>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.703148>}
```

```
=(), dtype=float32, numpy=3.6970177>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.7632>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.08001>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6831894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.82662>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.696162>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.14212>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.52173>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.620388>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.13146>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.43626>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6952043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.90649>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.27891>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6275795>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.49524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.13527>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3599706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.94316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.36745>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5757174>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.76312>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.03927>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7238553>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.22961>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.5648>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6648102>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.41814>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.89984>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.518298>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15796>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.778625>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.379333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.74961>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.326256>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.423357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.80627>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.33135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4749177>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94803>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.190834>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7571945>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.11578>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.402756>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7130318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.097626>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.28166>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8159637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.02785>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.469345>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5585008>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.27735>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.98083>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2965264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.449425>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.92695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5224762>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.1529>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.66386>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.489045>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.505196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.91675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5884476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.23483>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.67641>, 'kl_loss': <tf.Tensor: shape=()
```

```
=(), dtype=float32, numpy=3.5584297>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.92508>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.29784>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6272392>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.632095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.01033>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.621764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.1087>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.66471>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4439938>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.1737>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.66853>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.505165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.91304>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.117195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7958457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.40944>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.77871>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6307297>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.31677>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.65597>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.660808>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.96474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.284706>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6800294>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.66087>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.97844>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6824365>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.92577>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15038>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.775391>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.556145>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96926>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.586881>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.95682>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.500114>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4567018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.56221>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.078026>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.484185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.75433>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.04778>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.706548>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.14167>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.37947>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7621999>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.0093>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.37225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6370456>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.229164>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.653046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5761216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.70067>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.150894>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5497715>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.45752>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.074974>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3825462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.726974>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.12965>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5973313>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.35791>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.710045>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6478627>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.13643>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.65067>, 'kl_loss': <tf.Tensor: shape=()
```

```
=(), dtype=float32, numpy=3.4857535>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.292534>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.689224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6033127>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.01312>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.38062>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6325035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.271324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.609665>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6616604>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.14439>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.48382>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6605706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.73559>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.05701>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6785824>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.42134>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.815704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6056373>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.310585>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.72546>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5851274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.1932>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.57129>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6219125>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.82391>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.34379>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4801261>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.989044>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.484695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.504348>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.47907>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.7947>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6843724>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.27129>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.54502>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7262719>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.19323>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.5679>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6253288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.7773>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1644>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.612903>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.53833>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.08546>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4528728>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.991066>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.64831>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.342759>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.74182>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.799644>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9421806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.843864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.93571>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.908155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.51489>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.853806>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6610858>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.109955>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.42071>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6892498>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.15937>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.349495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8098736>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.548965>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.73371>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.548965>}
```

```
=(), dtype=float32, numpy=3.8152575>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.94179>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.28084>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.660951>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.59245>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.915695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6767585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81401>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.01389>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8001199>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.439285>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.65065>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7886314>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.73844>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.08334>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6550956>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.604324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.07799>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.52634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.344734>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.70138>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6433578>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.40835>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.74228>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6660683>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51593>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.95721>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5587273>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.9665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.43055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5359511>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.48075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.88491>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5958424>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.962006>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.42381>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5381908>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.96749>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45347>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5140216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.81304>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.129654>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6833866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.570496>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.02097>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5495186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.47083>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.85241>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6184258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.33703>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.78745>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5495772>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27536>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.556725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7186382>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.57409>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84114>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7329488>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.40638>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69357>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.712809>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.393135>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.74885>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6442883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96701>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.332085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6442883>}
```



```
=(), dtype=float32, numpy=3.6349244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.73165>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.42606>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3055847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.77129>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.40356>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3677373>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.68577>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.1495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5362675>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.20108>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.678665>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5224128>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.05941>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.5491>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5103042>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.5717>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.96072>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.610988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.60909>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.86077>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.748319>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.90854>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.34331>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5652306>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.61815>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.19558>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4225707>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.732414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.090004>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6424084>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.50317>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85812>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6450424>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.95391>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.326>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.627913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.79731>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.17894>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.618367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.17589>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.42849>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.747398>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68529>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.993515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6917706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.37087>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94286>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4280097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.70806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.33397>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3740945>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.60338>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89279>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.710588>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.99662>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.31032>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6863008>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.7438>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.02544>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7183604>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.12031>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.710556>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.90226>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.2075>, 'kl_loss': <tf.Tensor: shape=
```

```
(, dtype=float32, numpy=3.694764>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.527725>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.84208>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.685643>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.93539>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.24507>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6903138>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.546265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.896866>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.649397>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.30407>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.86004>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4440315>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.41287>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.002365>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.410508>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.73948>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05779>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6816869>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.55749>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.93185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6256423>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.679054>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.062935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6161175>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.639626>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.053154>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5864716>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.48941>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.867805>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6216023>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.013466>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52137>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.492099>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.21215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84073>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.371425>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.99687>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.459206>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5376668>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.34708>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.74289>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6041875>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.402176>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.73173>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6704483>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.25583>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.56232>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6935143>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.014206>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.4174>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5968106>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.02163>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.50321>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.518415>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.01027>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.49302>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5172493>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.72417>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.06035>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6638184>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.259346>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.53877>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.72057>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.90049>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.16487>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.694764>}
```

```
(=(), dtype=float32, numpy=3.735621>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.12917>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.55332>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.575852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.657585>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.1242>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5333867>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.34385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.73992>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6039307>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.87559>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.27839>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.597197>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.68778>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.21401>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4737713>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.72794>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.38671>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3412318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.86083>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43658>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4242585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.76146>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.28117>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.480288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.63777>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.95427>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6834984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.74335>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.08257>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.660778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.316055>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.59153>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.724523>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.88431>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.17896>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7053413>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.55199>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.85108>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7009041>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.30989>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.6409>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6689873>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.194214>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.63374>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5604687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.817406>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.40808>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4093251>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.9063>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.18992>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7163854>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.2969>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.53313>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7637699>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.25479>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.40005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.854744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.379845>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.69167>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6881745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.91957>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36546>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.55411>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.91624>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.224815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.55411>}
```

```
=(), dtype=float32, numpy=3.6914222>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.7036>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.835556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8680382>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.312836>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.62903>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6838067>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.75918>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.06894>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6902416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.134415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.488495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6459198>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.347855>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.72958>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6182694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.54152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.93616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6053643>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.79045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.523506>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2669442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.3382>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.852264>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4859357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.85022>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.30785>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.542368>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.94768>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.512312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.509026>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.8799>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.629125>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.28829>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.74739>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5409>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.48751>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94967>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.537845>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.527435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.00256>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.524868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.49376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.003555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4902065>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.59982>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.0416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5582192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.24041>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.74678>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4936302>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.73283>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.21323>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5196018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.821304>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.21381>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6074932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.21861>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.57587>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6427467>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.24497>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.63419>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6107795>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.166565>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.5639>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6107795>}
```

```
=(), dtype=float32, numpy=3.6026616>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.66988>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.138145>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5317352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.788414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.009834>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7785823>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.966324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.83572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.087326>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.25797>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8293538>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.97595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.15435>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8216019>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.98876>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.32977>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.658989>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.957756>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36984>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5879147>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.402466>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.91012>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4923482>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.09169>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.57732>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5143745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.24745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.69295>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5545044>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.43973>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.98117>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4585576>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.24503>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.67386>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.571176>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.198204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.55167>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6465373>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.06986>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.58224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4876258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.407074>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.89833>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5087466>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.73327>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.14388>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5893886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.55414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.908806>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.645333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.04193>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.51973>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5222008>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.36144>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.79286>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5685813>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.63925>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.12207>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5171838>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.481026>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04228>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.438744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.66315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.13261>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5171838>}
```

```
=(), dtype=float32, numpy=3.530538>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.24566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.78862>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4570389>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.54642>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.886826>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6595886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.234314>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.57055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6637661>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.043884>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.500084>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.543803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.463806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.938095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5257125>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.53771>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.84424>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6934707>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.636665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.89268>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7439888>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.64434>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98253>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6618137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.715385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.0604>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6549866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.08824>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.40473>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.683513>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.92683>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.297844>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6289833>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.71799>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.11249>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.605497>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.71877>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.22629>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4924884>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.25835>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.672775>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.585569>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.31893>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.57199>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7469394>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.64983>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.90721>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7426224>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.31766>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.82234>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4953136>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.96353>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40352>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5600135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.42974>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.8993>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5304382>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.56685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.06256>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5042892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.96283>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.53809>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.424733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.16743>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.48789>, 'kl_loss': <tf.Tensor: shape=()
```

```
=(), dtype=float32, numpy=3.6795335>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.64137>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.04395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5974174>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.141464>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.38211>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7593544>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.43035>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.79073>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.639621>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.323074>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.01677>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3063087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.08872>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.63564>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4530768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.685814>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.18518>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5006356>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.90052>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.336334>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5641868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.30728>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.65056>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6567245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.21634>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.74542>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.470916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.6562>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.20702>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.449173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.56075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.9651>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5956466>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.27217>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.67208>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6000907>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.665054>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.0521>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6129494>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.63716>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.82924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.807923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.32808>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51451>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8135648>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.39671>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.98001>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4167016>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.66963>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.432686>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2369435>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=89.20274>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.62236>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.58038>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.28245>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.52498>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7574687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.22967>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.62116>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6085072>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82259>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.08079>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7418067>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.11376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.11073>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7418067>}
```

```
=(), dtype=float32, numpy=4.0030265>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.18973>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.98751>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=4.2022142>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.97886>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.49667>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4821877>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94603>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.34121>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6048222>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.48702>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.74933>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7376952>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.82718>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.297424>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.529752>}
Epoch 7/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.91435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.38459>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5297618>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.36554>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.791534>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5740037>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.389206>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.87821>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5109906>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.61006>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.1245>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4855647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.143074>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.61534>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.527736>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.72288>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.093475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6294026>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.59684>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.00587>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5909743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.8243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.22445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.599853>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.5303>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.23221>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2980912>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.443565>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.89499>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.548577>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.303665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59719>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.706475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.57859>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.98925>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.589341>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.704094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.101875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.602219>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10452>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.57244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.532084>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36516>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.81203>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5531342>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.08457>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.42545>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6591156>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.13992>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.57244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.532084>}
```



```
<tf.Tensor: shape=(), dtype=float32, numpy=70.57419>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.5657344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.96048>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.37635>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5841305>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.905235>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.21711>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.688129>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.44443>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.74097>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7034595>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.50578>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.838>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.6677818>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.82287>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.13083>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.69204>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.5415>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=75.875465>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.666031>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.72352>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.2274>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.496116>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.89829>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.461136>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4371536>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.3439>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=65.888374>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.455529>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99775>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38885>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6089>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.06385>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.5329>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5309525>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.37597>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.579506>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7964654>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.83401>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.2739>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5601058>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.43904>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.9356>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5034409>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.34373>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.75941>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5843213>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.329414>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.79092>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5385013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.35721>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.81687>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.540336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.01197>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.47195>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5400214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.61322>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.91666>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6965623>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.431465>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.59808>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8333786>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.21522>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.43303>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.782185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52329>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.81816>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.705133>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.61313>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.0237>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5894287>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.567535>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.92502>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6425195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.451805>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.79462>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6571908>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.89218>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.181526>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7106547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.7157>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.13003>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5856698>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.23351>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.62665>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6068668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.46185>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.95357>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5082836>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.204605>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.52227>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6823342>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.447685>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.710495>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.7371917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.07753>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.426765>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6507678>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.47974>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.8777>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.6020322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.443954>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.84999>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.593966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.214134>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.70065>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5134807>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.90292>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.57808>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3248425>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.349556>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.98722>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3623333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.68464>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.112526>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5721135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.081436>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.6267>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4547322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.32881>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.946945>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3818688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.73368>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.4927>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2409806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.05808>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.65906>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3990235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.80647>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.22153>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5849426>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.28907>, 'reconstruction_l
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.67028>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6187897>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.93403>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.186905>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7471244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.31244>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.56185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7505836>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94698>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.42445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5225272>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.32004>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.777725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.542315>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.14514>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.551254>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5938911>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.38118>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.57958>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8016>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.78936>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.00445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7849114>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.11028>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.44783>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6624546>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.12376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.55906>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5647004>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.52376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.9666>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5571582>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.58042>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.1931>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3873184>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.27123>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82932>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4419105>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.6027>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.03266>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5700402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.40283>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.76348>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6393528>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.554054>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.90118>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6528773>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.78553>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.233955>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5515716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.366936>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.90628>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4606576>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.94215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.382774>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5593731>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.79768>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.22333>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5743568>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.13972>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.31444>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8252819>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.80036>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.175255>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6251094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.774506>, 'reconstruction_loss':
```

```
shape=(), dtype=float32, numpy=71.19524>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5792701>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.892746>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.45582>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4369304>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.01788>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.44185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5760365>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.776085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.10946>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.666624>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.9475>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.29023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6572754>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.61949>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.99557>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6239257>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17261>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.621864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5507424>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7848>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.24773>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5370712>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.98059>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38252>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.598069>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.56806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.9459>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6221633>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.3119>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.696236>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6156647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.06687>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.449425>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6174483>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.259995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.61058>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.649414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.06157>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.383224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.678347>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.89359>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.19997>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6936269>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.75583>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.13028>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6255493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.02685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.34886>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6779861>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.59551>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.00758>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.587928>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.63247>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.094864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5376072>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.04264>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.30217>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7404678>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.44151>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.729996>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7115178>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.299675>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.609795>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.689879>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.53057>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.895256>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.635318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.58365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.88794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6957116>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.40653>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.891304>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5152316>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.629616>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.25662>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3729901>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.915>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.36153>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5534725>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.93589>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.27358>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.662309>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.12396>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17632>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9476414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.19455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.42458>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7699668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.674614>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10457>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.570047>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.506966>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.18122>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.325742>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.90524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.22464>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6806056>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.90572>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.1237>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7820237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.398384>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85386>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5445275>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.45068>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.927>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.523684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.20915>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.686485>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5226703>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.50391>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.127045>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3768585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.7154>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.26729>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4481144>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.57263>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04401>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5286222>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.96101>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.376366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5846448>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.24774>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.74395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5037906>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.957>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.33647>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6205304>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.56731>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.9275>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6398053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.73992>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.10812>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.631797>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.41547>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.83793>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5775375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.74122>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1917>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5495152>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.571144>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.92477>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6463783>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.89367>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.26265>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6310196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.48214>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.929115>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5530243>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.53318>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97697>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5562165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.72656>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.1903>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5362651>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.94902>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.355225>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5937996>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.72128>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.13111>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5901718>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.82861>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.34945>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4791603>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.977036>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.58007>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.396965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.39859>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94732>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4512718>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.569275>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.08827>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4810004>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.92267>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.30193>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6207337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.774895>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.20686>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.56803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.22952>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.62004>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6094832>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.07125>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.64909>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4221587>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05057>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.57109>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4794745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.54619>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=83.01024>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5359504>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.0693>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.51503>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5542665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52358>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.95886>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5647202>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.59932>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.127426>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4718971>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.87367>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.423515>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4501548>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.83439>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.20262>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.631766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.34471>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.64256>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7021477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.87979>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.201965>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6778297>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.3067>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=68.64363>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6630733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.36448>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.63663>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7278533>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.232025>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.32288>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.9091415>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.4017>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=74.46084>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.940862>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.26248>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.608826>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6536574>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.974014>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.46746>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5065536>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.999504>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.45524>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5442672>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.30573>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.69261>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6131196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79989>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.21741>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.582484>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.93193>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.41648>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5154533>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.05841>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.578705>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4797034>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.39472>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.88247>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5122495>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68065>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.104645>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5760055>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.576004>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.97282>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6031837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.3871>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.72259>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6645157>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.16806>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.64603>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5220313>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.15404>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.76012>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3939247>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.744736>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.030174>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.7145596>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.10819>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40427>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7039237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.04201>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.30199>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7400231>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.35831>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.76926>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.589053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.9632>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=74.46334>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.499866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.752144>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.18983>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5623188>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.06326>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.381805>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6814606>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.639244>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.90502>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7342238>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.327354>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.66449>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6628633>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.05605>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.34006>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.715995>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.95279>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.24316>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.709631>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.633385>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.042496>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.590892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.37884>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.64727>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7315662>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.22703>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.58415>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6428742>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.21751>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.806885>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4106224>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.85631>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.32841>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5279038>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.859344>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.35385>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.50549>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.32982>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.79078>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5390422>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65677>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.241806>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.414964>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.74794>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.22684>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5211062>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94848>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.38929>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5591888>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.1075>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=74.56465>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5428498>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.5496>, 'reconstruction_lo
```



```
ss': <tf.Tensor: shape=(), dtype=float32, numpy=74.9623>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5872955>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.10727>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.66829>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.438982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.74302>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.30462>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.438399>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.51181>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.02018>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.491628>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.11827>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.59746>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5208137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.047226>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.39242>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6548111>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.97052>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.256485>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7140338>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.80687>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.203606>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6032639>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.19099>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.51263>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6783605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.25916>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.84227>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.416896>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.87767>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40118>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4764957>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.2554>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=70.60953>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.6458745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.65048>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.07951>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5709672>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.31258>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.87822>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4343567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.58501>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.103966>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4810379>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.83844>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.49992>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3385131>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.66533>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.11371>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5516167>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.12244>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.49009>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6323504>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.60154>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.11072>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.490825>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.1219>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=79.573975>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5479264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.89233>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.26135>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6309752>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.189926>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.53514>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6547847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.623695>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.98487>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6388237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.8032>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.281075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5221226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.42052>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.97047>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4500473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.45691>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.06074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3961747>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.67916>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.11157>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5675888>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.08787>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.45328>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6345916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.46063>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.84092>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6197128>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.26339>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.67446>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.588929>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.5924>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.00345>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5889516>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.900566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.29089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6096702>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.83553>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.30022>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5353196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.080826>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.460434>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.62039>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.777985>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.21052>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5674663>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.3275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.013176>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3143272>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.70958>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.19662>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5129662>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.817085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17667>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6404183>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.54894>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.96157>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5873687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.43601>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.97948>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.456538>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.983986>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.64415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3398366>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.73553>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3703747>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.579735>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.164024>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4157078>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10502>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.438705>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6663163>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.06444>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.438705>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6663163>}
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43402>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.630413>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.06687>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.34838>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.718491>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.837105>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.36452>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.472588>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.14971>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.912575>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.237135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.13656>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69134>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.445221>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.10999>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.70088>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4091077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.56245>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.055016>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5074317>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.815155>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.32844>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4867158>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.174995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.65651>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.518483>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.57013>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05243>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.517704>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.04874>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68346>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3652806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.23324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.79776>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.435477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.72566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.01539>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7102711>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.52751>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.952065>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5754495>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.22801>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.617615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.610394>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.84508>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.2392>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6058846>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.97331>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.394196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5791194>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.061>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.386284>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6747136>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.380844>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.84865>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.532193>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.95946>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.52262>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.43684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.49015>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.025734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4644191>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.81682>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.146194>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6706243>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.07985>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.37599>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7038543>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.9116>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.322075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5895214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.99663>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.46504>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5315876>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.72489>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21793>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5069604>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.43599>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.06279>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.373202>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.92435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.37421>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.55014>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.618324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.04683>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5714946>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.4563>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.030075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4262264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.4552>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.934135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5210674>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99437>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.4331>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5612736>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.13971>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.54978>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.589929>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.432396>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.818184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6142108>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.05987>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.446434>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.613437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.69601>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.16377>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.532236>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.2415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.747536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.493967>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.4101>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.8853>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5248055>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.7701>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.355095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4150054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.897705>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.45094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.446764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.50238>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.9014>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6009815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.374886>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.72006>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6548252>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.98218>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43467>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.547512>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.98691>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.44943>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5374737>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.195496>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.16377>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.532236>}
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.78366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4118316>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.01943>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.71873>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3007054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.74153>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.903946>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8375823>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.82654>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.0232>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8033333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.55614>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.98366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5724761>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.109375>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.498085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.611293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.34787>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.64127>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7065957>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.63516>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.923805>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7113538>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.78152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.220726>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5607917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.65855>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0863>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5722442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.98548>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.30055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6849296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.2224>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.53545>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6869411>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.63535>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.05459>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5807629>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.369514>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.89427>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4752445>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.166954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.58839>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.578566>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.27921>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.7074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.571813>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.592514>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.14623>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4462802>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.15684>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.73012>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4267209>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.622185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.139694>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4824886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.019905>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.56496>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4549496>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.12536>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.69059>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4347687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.72945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.1253>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6041462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.51645>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.1253>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6041462>}
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04351>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4729404>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.44277>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.89823>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5445373>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.444115>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.97009>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.474022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.52735>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.90678>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6205726>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69826>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.069466>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6287894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.38576>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.76036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.625393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.58053>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.98429>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.596238>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.20925>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.639366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5698872>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.63966>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.36002>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2796433>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.68022>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.353485>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.326735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.12754>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.643005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4845319>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.42242>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.95728>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.465136>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.03912>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.57133>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4678001>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.39083>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.80958>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5812507>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.3807>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.681816>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6988816>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.75075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21161>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.53914>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.57469>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.18989>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.60617>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.03615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5700192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.527534>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.941185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.586348>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.92711>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.36078>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5663323>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.74217>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.18851>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5536652>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.028656>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.35953>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6691296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.90349>, 'reconstruction_loss':
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=70.30023>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6032555>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.43811>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.05597>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.382141>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.526344>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19594>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3304048>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60158>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.97655>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6250324>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.99028>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.396355>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.593926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.66814>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.05402>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.614116>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.052574>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.427536>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.6250381>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.76885>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15837>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.610482>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.662415>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05905>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6033616>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.887886>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.27093>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6169617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.63696>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.06369>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5732765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.324066>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.93293>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3911393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32892>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.97943>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3494835>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.72254>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.12612>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5964236>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.7007>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=68.156166>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5445304>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.59844>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.036415>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5620294>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.999146>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.46627>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5328782>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.53486>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.974594>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5602639>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.98986>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.54608>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4437776>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.365715>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.03561>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.330108>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.924545>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.42975>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.494796>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.02402>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.479164>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.544857>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.386>, 'reconstruction_lo
```

```
s': <tf.Tensor: shape=(), dtype=float32, numpy=72.79174>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.594265>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.31296>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.689415>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6235416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.92032>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.401726>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.518589>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.02117>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.5733>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4478676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.89816>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.45998>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4381843>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.74636>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.18247>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5638878>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.2155>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60393>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.6115716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.889786>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.258896>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.6308868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.147606>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.65824>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.489367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.46718>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.00983>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4573536>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.3701>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.87996>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.490139>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.82217>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.323746>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4984238>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.85062>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.45513>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3954887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.729675>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.44362>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2860558>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.10085>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.75164>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.349214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.71879>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.30763>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.411159>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.67152>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.07637>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5951455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.75461>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.17202>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5825868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.3872>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=76.75145>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.635749>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.865395>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.24944>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.61595>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.46934>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84998>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6193542>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.61458>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.00067>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6139073>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.33315>, 'reconstruction_l
```



```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.82467>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.5084865>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.89483>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.510254>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3845775>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.903625>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.25215>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.651472>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.4244>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=77.73465>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.68975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.40816>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.66197>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7461877>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.49436>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.8871>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.6072648>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.91968>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.425446>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4942322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.26067>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.653275>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6073983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.78834>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.01256>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7757764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.170265>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.57562>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5946434>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.64337>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.035034>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6083398>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.1405>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.58766>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5528424>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.55423>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.03254>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.52169>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7135>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=70.20845>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.505052>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.77022>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.555725>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.214492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.55075>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.15355>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.397203>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.26367>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.84179>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4218857>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.935356>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.52815>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4072056>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.30711>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.78909>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5180237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.45647>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.00844>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4480324>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.40493>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.93665>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4682765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.398315>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.95247>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.445848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52957>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.08957>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4400039>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96543>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.48317>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.482263>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.383255>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.95357>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4296849>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.07315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.61538>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4577713>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.743195>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.19725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5459418>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.215096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.63518>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5799165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.43677>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.89122>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5455456>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.390816>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.85129>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5395248>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.72168>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.24267>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.47901>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.794815>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.080864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7139542>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.26812>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.506>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7621255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.09092>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.329185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7617316>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.76203>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.01561>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7464218>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.10691>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.519554>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5873551>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.05349>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.530655>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5228353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.420334>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.99635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4239774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.091225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.637825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4533982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.09673>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.61083>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4859004>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.481674>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.07576>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4059157>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.184074>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.67682>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5072563>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.368515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79992>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.568599>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.24869>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82266>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4260285>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.350975>, 'reconstruction_loss':
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.91859>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4323878>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.59862>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.10459>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4940262>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.56044>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.00896>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5514863>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.274574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.826614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4479585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.501045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.008446>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4925988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.645805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.20274>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4430625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.4088>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04336>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3654418>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.51511>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.0691>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4460094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.276146>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.901375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3747742>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.64>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.04492>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.595079>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.277275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68358>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5936966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.07892>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.58869>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4902291>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.28198>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.81088>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4710991>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.70973>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.08884>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.620892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.70305>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.026436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6766167>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.76139>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.16372>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5976715>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.72292>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.11984>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6030822>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.04842>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.408165>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6402621>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.12938>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.55069>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5786877>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.78497>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.2262>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.558773>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0046>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.54497>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4596329>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.256935>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.72685>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5300808>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.537>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.2262>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.558773>}
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=72.86815>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.66885>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.96094>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.31455>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.646387>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.535164>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.10922>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4259408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.043816>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.53964>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5041702>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.59285>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.1025>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4903488>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.7704>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.30134>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4690642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.209854>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.829155>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3807006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.34098>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.70469>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6362948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.91714>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.3646>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5525346>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.29319>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.589096>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7040906>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.364555>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.76759>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5969586>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.46182>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.16192>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2999065>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.35775>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.90486>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4528859>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.0452>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=76.56029>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.484906>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.91507>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36852>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5465455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.49743>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.85704>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.640387>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.21851>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.74281>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4757035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.7025>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.260925>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4415774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.50736>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.92081>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.586555>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.254>, 'reconstruction_los
s': <tf.Tensor: shape=(), dtype=float32, numpy=72.69352>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5604808>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.53357>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.96123>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5723438>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.73522>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.00789>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.7273319>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.56233>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.81252>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.749808>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.52499>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.13369>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3912988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97924>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.78459>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.19465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=88.1646>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=84.66039>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5042033>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.350044>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.70484>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6452026>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.34026>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.82647>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5137932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.988594>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.3549>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6337006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.9634>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=79.10478>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.858622>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.578415>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.5351>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=4.0433135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.874275>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.45166>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4226174>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.97485>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.4561>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.51875>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.75705>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.15118>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6058743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.31181>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.86889>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4429212>}
Epoch 8/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.26323>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81459>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4486382>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.638756>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.143524>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4952316>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38415>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.93518>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4489639>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.632164>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.19697>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4351966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.12402>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.64541>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4786162>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.8522>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30206>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5501418>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.46967>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.95066>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5190113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.87725>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.33879>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.538463>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.74758>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.50351>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2440712>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.818855>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.35827>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4605896>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.56861>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.963>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6056144>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.556885>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.02248>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5344093>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.92037>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.38206>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.538318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.3343>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.85353>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4807668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.69634>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.20814>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4882035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.28026>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.71244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.56782>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.20584>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72753>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4783063>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.28929>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.78502>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5042732>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.15304>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.56706>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.585973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.51216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.909485>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6026745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.682335>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.085915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.596421>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.98104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.356026>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6250167>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.69721>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.095215>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6019967>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.7165>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.28555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4309487>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.011925>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65459>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3573349>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.63168>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.28076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3509197>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.12564>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.61609>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5095527>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.16473>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.698746>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.465979>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.58628>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.87822>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7080612>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.99589>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51527>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.48062>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.62184>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.202866>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4189792>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.52934>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05446>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4748855>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.379105>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.93345>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4456544>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.57363>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.1089>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4647317>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.134445>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.642166>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4922783>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.46269>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.819046>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6436467>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.386795>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.62879>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7579994>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.106186>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.40107>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.705113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.43562>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81173>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6238961>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.8024>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.28947>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5129287>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.69911>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.13505>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5640671>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.48071>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.88574>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.594967>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.06397>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43387>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.630106>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.7616>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24365>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.517942>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.34936>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.8161>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.533258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.68134>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.241234>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4401078>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.15664>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.537254>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6193862>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.51156>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84876>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6627953>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.0785>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=68.49818>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.58032>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.39821>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.87666>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5215478>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.67879>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1687>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5100837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.26205>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.8326>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.429442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.1142>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.85294>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2612557>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.34007>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.02834>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3117282>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.014565>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50819>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5063782>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.14356>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.74582>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3977432>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.33188>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.0204>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.311475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.893166>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.71099>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1821766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.16965>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84804>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.321611>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.67634>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.17231>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5040307>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.29529>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.76765>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5276446>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.86461>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.1935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6711102>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.40389>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.733185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6707091>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.179504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72363>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4558697>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.502106>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.03119>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4709194>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.13716>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.61673>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5204282>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.883>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7117362>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.86121>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.14568>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.715531>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.29628>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.67849>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6177926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.16084>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.64898>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5118651>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.64108>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.14841>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4926744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.67584>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.343735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.332106>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.343475>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.96149>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3819923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.562355>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.03252>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5298386>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.44667>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.86793>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5787444>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.34862>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.77786>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5707543>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.92027>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.45417>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4661026>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.17517>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.790535>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3846364>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.890236>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.41974>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4704986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.04166>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.53997>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.501683>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.172806>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.44772>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7250798>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.929825>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.38791>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.541919>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.857956>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36087>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4970875>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.01271>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.64512>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.367595>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.21353>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.727646>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4858837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97035>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.393166>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5771897>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.978806>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40005>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5787606>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.9504>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.398994>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5514045>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.22533>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.76124>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.464088>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.91464>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.46924>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4454048>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.31182>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82583>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4859912>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.688354>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.171234>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.5171173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.59395>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.069885>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5240662>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.1474>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.622665>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.524733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.67975>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.12276>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.556993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.257385>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.683685>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.5737011>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.161606>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.58082>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.580787>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.853966>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.340805>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.513162>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.16085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.592155>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5686984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.48205>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.99286>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4891891>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.805214>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.36509>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4401238>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.36287>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.74506>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.617804>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.86118>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.292595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5685909>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.52845>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.973785>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5546665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.58037>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.071144>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5092201>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.84609>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.26255>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5835395>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.97604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.53294>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.443103>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.767715>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43873>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3289878>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.12738>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.64349>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4838867>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.04743>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.46682>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5806134>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.41152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.58381>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.827716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.30205>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.60658>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.695465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.937035>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.415825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5212111>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.44874>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.12582>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3229237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.09473>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.440765>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.653962>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.69757>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.96714>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7304337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.41842>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.91071>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5077043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.438835>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.9477>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.491137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.385025>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.88919>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4958382>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.42854>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.07907>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3494716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79148>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.381584>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4099>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.837814>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.37252>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.46529>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.99217>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.47251>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5196633>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.15449>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.687515>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4669693>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1118>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.58197>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.5298343>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.77675>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.23936>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.537389>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.90916>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.380714>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5284448>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.42097>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.95057>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4703946>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.80769>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.381996>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4256966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.640335>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.13164>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5086968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.88276>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38879>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4939759>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.58589>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.13355>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.452341>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69211>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.24359>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4485188>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.705925>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24947>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4564538>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.982506>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.48393>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4985726>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.67211>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.182816>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4892936>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.94495>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.55633>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3886216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.75724>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.43592>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3213227>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.42053>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.050446>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3700867>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.68497>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.28052>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4044487>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.15737>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.59982>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5575516>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.16325>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.66494>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4983153>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.42886>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.88514>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5437217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.04242>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.65006>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.392353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.216995>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.77586>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4411323>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.67942>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.18256>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4968567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.18804>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.663315>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5247245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.629105>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.08792>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5411816>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59>, 'reconstruction_los
s': <tf.Tensor: shape=(), dtype=float32, numpy=69.13121>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4587898>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99392>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.55907>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.434852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.668175>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.06757>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.600602>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.67323>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.02744>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6457894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.05477>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.43245>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.622322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41525>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.79795>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6173012>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.50073>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82854>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6721928>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.12456>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.30951>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.815045>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.47102>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.624344>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.8466823>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.46109>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.85129>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6098003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.01502>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.53593>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4790962>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.314476>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.80914>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5053298>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.25985>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.67246>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5873904>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.021065>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.47972>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5413444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.14033>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.66913>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.471199>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.440674>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.013954>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4267173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.45805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.00161>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4564445>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.75377>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.23204>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.521729>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.65356>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.11439>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.539167>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.61513>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.02304>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5920875>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.34724>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.87877>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4684684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.287834>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.93888>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3489566>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.838585>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.20596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6326218>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.27994>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.67485>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6050868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.80857>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.15564>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6529288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.2365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.73374>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5027645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.12061>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69281>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4278038>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.83534>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.33925>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4960968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.0816>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.465164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6164346>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.802605>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.161095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6415093>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.46391>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.89029>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5736275>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.01415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.37316>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6409938>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.98632>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.34304>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6432788>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.70507>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.15998>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5450885>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.632065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.960464>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6715999>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24119>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.649925>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5912614>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.16281>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.7721>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3907113>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.15225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.64715>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5051079>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.944305>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.44838>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.495922>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43077>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.9169>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5138683>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.093575>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.7113>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3822703>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.9816>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.50277>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.478829>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.343376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.840164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5032113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.82971>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.33475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4949684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.69169>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.14358>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5481105>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.44215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.04621>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.395935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.89567>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.501595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3940709>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.515686>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.08382>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4318695>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.42791>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.97658>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4513295>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.1541>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.58136>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5727367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.143295>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.52542>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.617871>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.96696>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.429436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5375228>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.303116>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69378>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6093383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36006>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.9916>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3684611>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.03751>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.61538>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4221344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.39024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.821976>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5682693>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94431>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.44432>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4999943>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.57843>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.196724>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3817036>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.72685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.298676>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4281793>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.81811>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.51269>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3054185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.85518>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.37475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.480428>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.26071>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.705414>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.555294>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66951>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.23492>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4345908>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.269196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.79506>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4741337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.955345>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.40666>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5486856>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.141914>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.55442>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5874925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.67092>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.08917>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.581749>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.06834>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.59023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.478105>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.36091>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.93716>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4237542>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.479675>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10633>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3733482>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86124>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.36222>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4990132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.05948>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.50256>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5569115>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.634125>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.08838>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.545744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.62352>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.109924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5135918>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.74782>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.22784>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.51998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.054535>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.51961>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.534928>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.94582>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.48526>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4605668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.22369>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.67906>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5446231>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.51325>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.019264>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4939885>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.31815>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.05364>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.264508>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.916954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.48146>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4354966>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.91989>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.373024>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.546868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.715164>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.223076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4920864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.498276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.117874>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3803985>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.352455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.073326>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2791286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.789185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.475716>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.313469>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.56166>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.199875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3617885>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.17024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.58438>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5858645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.24097>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.67668>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5642877>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.12378>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.48935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6344337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.99964>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.610596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3890457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.715004>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.537674>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1773286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.11699>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74167>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3753192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.14327>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.799774>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3434958>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.69795>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.25547>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4424834>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.82826>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.40281>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4254506>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15511>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.702286>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4528308>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.69994>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.25216>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.447782>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.08713>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.78287>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3042634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.28434>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.91239>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3719506>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.66524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.045654>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6195846>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.56968>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.06469>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5049865>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.50952>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.970985>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5385356>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.09749>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.567055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5304337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.14222>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.64611>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4961097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.886925>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.311005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5759225>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.19068>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.72686>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.463819>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.980995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.5935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3874977>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.30342>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.91122>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3922012>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.81294>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.23959>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5733476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.12651>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.50498>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6215255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.98064>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.47088>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5097547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.95671>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.48932>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4673889>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52702>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.090775>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4362457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.130684>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.81791>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3127747>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.15399>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.68129>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.472699>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.95261>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.477806>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4748>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.34449>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.971725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3727632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.49865>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.03673>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.461925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04733>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.57133>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4760087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.032036>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.52939>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.502644>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.03709>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.492386>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5447018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.99745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43989>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5575676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.92181>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.45109>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4707208>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.2002>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.77162>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4285836>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.502396>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.05993>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4424675>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.672615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.333755>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3388588>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.80685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.4358>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3710506>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.49592>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98588>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.510041>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.57122>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.010956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.560266>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.05938>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.5958>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4635766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.000984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.558784>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4422002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.17609>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.83693>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3391595>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.213196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.97949>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2337036>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.813324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.10882>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7045085>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.04189>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.35985>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6820455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.61107>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.10988>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.501191>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.1122>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.555595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5565987>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.61478>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.9826>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6321774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.795975>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.17164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6243377>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.77363>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.29377>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4798608>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.02241>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.52485>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4975617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.40757>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.80074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6068268>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.23528>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.58434>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6509414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.82697>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.26496>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5620117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.45097>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.995804>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4551682>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.429596>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.87613>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.55347>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.34958>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.802986>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5465932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.751656>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.32121>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4304404>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.33078>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.92163>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4091468>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.673965>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.20454>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4694285>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.29919>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.88211>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4170792>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.23317>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.837906>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3952625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.843834>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.289055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5547814>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.66971>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24528>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4244308>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.41972>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.934364>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4853616>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.612236>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19539>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4168441>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.602745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.05869>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5440528>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94483>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.41714>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.527692>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.59355>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.06082>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5327306>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.71345>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.20646>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5069852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.660225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.16945>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4907749>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.76616>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.50734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.258821>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.7973>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.503845>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.293457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.229706>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.80066>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4290493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.70065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.29355>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4071007>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.028595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.596664>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4319282>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.341965>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.807724>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5342393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.622215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.99172>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6304913>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.06789>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.57523>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4926567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.87249>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.5249>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3475907>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.5641>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.03762>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5264843>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.59279>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.06258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5302136>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.907425>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.403206>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5042152>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.886635>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.407005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.479631>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.12966>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.546684>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.582975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.25341>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.740204>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5132072>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.760124>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43642>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3237042>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.75784>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.47468>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2831619>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.81482>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.26727>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5475457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.25979>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.75937>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.500421>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.133095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.62411>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5089898>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.16028>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.607735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.552544>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.73094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.177155>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5537868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.880104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32542>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.55469>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.99577>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.43381>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5619645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94158>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.435936>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5056453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.49593>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15887>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3370667>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.50726>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.20581>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3014503>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.966965>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43821>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.528754>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.10461>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.61364>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4909701>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.540596>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.02918>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.511416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.056435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.57804>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4783912>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.73485>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.24626>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.488586>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.05564>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.67361>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3820329>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.61151>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.334625>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2768884>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.9308>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.49714>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4336617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.277466>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.80676>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4707046>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.665726>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.15219>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5135353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.41015>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85889>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.551263>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.214035>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.752266>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4617665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.26908>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.868256>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.400827>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.39577>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.00318>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3925853>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.90001>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.37493>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.525074>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.48745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.90097>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5864806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.87634>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.26462>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6117272>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.18913>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.70794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.481194>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.68069>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.2477>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4329858>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.67034>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.211655>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.458686>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.858864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.38128>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4775863>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.96524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.583626>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3816135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.726006>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.45391>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2720923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.17788>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.84676>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.331118>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.822014>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.44096>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3810506>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.84721>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.314705>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5325058>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.7604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.23359>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5268102>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.50275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94223>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5605183>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.97547>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.433914>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5415604>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.5328>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.97263>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5601673>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.63745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.098045>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5394084>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.52446>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.07289>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4515681>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.11193>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.78581>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.326121>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.95476>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.391525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.563231>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.517784>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.90995>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6078334>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.563>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.87363>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6893754>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.68394>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.11755>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5663848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.07526>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.61831>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.456946>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.38968>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82309>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5665932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.95389>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.232>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7218819>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.360504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.80778>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5527234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.86315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.28496>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5781925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.46874>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94784>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.520903>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.66989>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.18355>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4863422>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.856544>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.396645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4598994>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.24721>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.05774>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1894698>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.40212>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.03891>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.363214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.07543>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.684975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3904579>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.44396>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.07312>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3708415>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.37998>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.9187>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4612832>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.42471>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.04608>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3786342>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.66821>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25869>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4095216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.493706>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.09575>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3979576>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.52257>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.128624>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.393947>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.25572>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.84024>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4154847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.4517>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.08436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3673425>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.15092>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.76938>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3815398>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.15294>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4607022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52369>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.0339>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4897952>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.66847>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.19578>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4726925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.86797>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.4135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4544785>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.03178>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.62331>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4084733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.98814>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36116>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.626974>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.67798>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.0253>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6526833>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.511>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85231>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.658689>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.91007>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.2435>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.666572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.230774>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.697105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5336678>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.29187>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81689>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4749825>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.611755>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.219536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3922195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.47048>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05429>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4161887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.08814>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.65266>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4354892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.85426>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.51323>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.341037>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.50076>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.06638>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4343758>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.827805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.333046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4947548>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.13694>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3672988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.72646>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.35562>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3708405>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.04274>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.610115>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4326286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.75353>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.28161>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4719226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.5382>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.14385>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.394345>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66005>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.20746>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4525928>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.926926>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.51844>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.408484>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.61214>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.263374>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3487659>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.360954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94293>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4180253>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.27664>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.94916>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.327486>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.724464>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.19965>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5248134>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.44271>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.93628>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5064347>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.31216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.88312>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4290395>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.50947>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.0802>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4292665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99108>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.426704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5643737>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.93174>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.323746>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6079948>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.18425>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.66138>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5228748>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.0693>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.55223>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5170693>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.40521>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.84905>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5561614>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.36015>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.857376>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5027778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.03176>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.54755>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4842129>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.36279>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.963745>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3990502>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.4803>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.00888>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4714203>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.84351>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.26275>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5807633>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.458206>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.91336>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5448442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.86365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.52551>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3381355>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.13175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.71231>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4194427>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.886986>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.48597>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4010155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.893265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.5116>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3816712>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.46283>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.16038>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3024547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.4912>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.9579>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5333028>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.075806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.62198>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.453825>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.5677>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.98447>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5832343>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.58745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.1046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4828453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66374>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.44836>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2153885>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.47571>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.11908>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3566253>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.13008>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.75275>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.377332>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.29113>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.852684>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.438443>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.626396>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.0979>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5284965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.6509>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.284294>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3666062>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.02919>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.68178>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.347412>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.70807>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.205154>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5029106>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.57095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.07485>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4960976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.668076>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.14398>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5240948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.02412>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36071>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6634088>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.97761>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.28968>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6879249>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.856766>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.499695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3570702>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.374954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.19351>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.181439>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=87.270195>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.7794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.490792>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.60531>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.996765>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6085434>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.57513>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.095055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4800715>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.5279>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.94847>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5794277>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.36396>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.58628>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.777678>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.9415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.01771>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.9237914>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.218834>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.84647>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3723633>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.54428>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.08527>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.459008>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.267006>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.73648>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.530527>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.46073>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.06157>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3991652>}
Epoch 9/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.621315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.25511>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3662047>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.175446>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.77574>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3662047>}
```

```
e=(), dtype=float32, numpy=3.3997028>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.832016>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.48517>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3468437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.74034>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.382095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3582444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.49875>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.09123>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.407514>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.261314>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.78982>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4714959>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.96618>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.51582>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.450354>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.32546>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84783>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4776292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.07451>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.868126>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2063801>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.09643>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.684326>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4120991>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.092674>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.53182>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.560849>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.85539>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.328186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5272095>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.18762>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.66351>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.524107>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.52002>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.05545>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4645698>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.95725>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.48731>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.469939>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.68056>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.13699>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5435631>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.440994>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.97128>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.469708>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.18809>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.67872>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5093696>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.34911>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.792366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5567505>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7577>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.20335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5543532>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.8999>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.35026>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.549643>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.99056>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.42285>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5677078>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.878845>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.33094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5479035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.84404>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.438255>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5479035>}
```

```
e=(), dtype=float32, numpy=3.4057808>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.307884>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.98337>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3245196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.09743>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.80271>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.294714>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.3966>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.96254>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4340622>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.264824>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.880745>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3840766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.550545>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.95624>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5943046>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.14317>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.74743>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.395747>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.07651>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.74085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3356583>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.71518>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32804>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3871384>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.728325>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.38066>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3476608>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.82043>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.47185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.348578>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.33986>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.96932>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3705382>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.95219>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.429634>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.52255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.54305>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.89572>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6473343>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.42486>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.811035>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.613823>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.655014>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.11186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5431511>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.33221>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.888214>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4439912>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.061844>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.55499>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5068543>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.9789>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.42572>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5531769>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.28559>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.69835>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5872436>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.14288>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.63088>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.511998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.71528>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.19283>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5224445>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.98982>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.56696>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.511998>}
```

```
=(), dtype=float32, numpy=3.422863>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.70123>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.11083>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.590402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.8828>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.252716>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.630083>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.40866>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.85917>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5494945>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.8024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.29571>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5066948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.195915>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.709206>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4867089>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59441>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.175>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.41941>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.51096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.24752>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2634454>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.4617>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.15936>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3023388>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.36317>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.89831>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4648583>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.64948>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.29444>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.355044>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.6219>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.35733>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2645707>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.07249>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.91135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.161141>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32052>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.00925>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3112717>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.90982>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.446045>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.463778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.604324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.14643>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.457892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.0776>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.49606>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5815322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.71035>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.13794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5724132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.72017>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.33646>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3837101>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.8253>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.41559>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.409713>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.712906>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.26191>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4509926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.0536>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.433044>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.620549>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.21301>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.577736>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.409713>}
```

```
e=(), dtype=float32, numpy=3.6352756>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.694984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.16127>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.533711>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.27676>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.83545>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4413075>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.97378>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.54463>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.429145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.020424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.71953>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3008943>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.87999>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.53264>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3473506>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.003>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52327>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4797256>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.53697>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.0185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5184734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.608475>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.08829>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.520188>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.048615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.605934>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.442679>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.40453>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.034805>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3697295>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.26782>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.811874>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4559472>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.42294>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.93413>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4888146>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.93691>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.23189>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7050235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.17032>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.64322>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5271027>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.120964>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.628685>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4922822>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.354454>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.99368>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3607738>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.64642>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.16416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.482263>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.41832>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.854195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5641258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.16626>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59677>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5694847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.30652>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.778984>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5275352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82751>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.39193>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4355805>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.134125>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.725006>, 'kl_loss': <tf.Tensor: sha
```

```
pe=(), dtype=float32, numpy=3.4091156>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.4654>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.03155>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4338565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.12118>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.651764>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4694138>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.12516>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.65393>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4712327>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59401>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.14108>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4529297>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.112114>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.62873>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4833806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.7348>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.23896>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4958434>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.48561>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.983284>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5023255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.16339>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.717186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.446202>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.54487>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.029106>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.515763>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.843735>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.38573>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.458011>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.95958>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.54052>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4190598>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.853355>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.307495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5458627>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.40534>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.90788>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4974606>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.782364>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.28143>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5009341>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.87579>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40351>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4722817>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.14581>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.59842>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5473945>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.16858>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.7536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.414975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.86105>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.5459>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.315155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.49946>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.063614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4358463>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.1416>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.60121>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5403914>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.43266>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.66345>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7692077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.56221>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.94049>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4091156>}
```

```
=(), dtype=float32, numpy=3.62172>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.27191>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.81334>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4585717>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.73162>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.44826>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2833626>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.99426>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.397354>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5969055>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.857796>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.19022>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6675694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.83908>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40537>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.433705>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.80524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.387825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4174087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.37989>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.9595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4203868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.79642>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.522026>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2743888>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.195045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.86195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.333091>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.90867>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.51168>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3969867>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.14806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.69906>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4490066>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.39542>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.99036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4050636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.507164>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.04987>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.457293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.116585>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.63957>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4770157>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.26207>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.784836>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4772346>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.68527>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.25417>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4311013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27693>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.88201>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3949227>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.64634>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.164665>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4816766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.03414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.551636>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4825065>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.729095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.290276>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4388185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.89617>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.46959>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4265816>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.09623>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.667>, 'kl_loss': <tf.Tensor: shape=
```



```
(, dtype=float32, numpy=3.4292297>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.02561>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.55579>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4698215>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.61912>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.17192>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4471962>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.020096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.66697>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.353125>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.783485>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.48849>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2950008>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.51666>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19004>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3266227>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.96623>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.61815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.348081>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.61445>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.12011>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4943416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.484505>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.053505>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.431003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.00641>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.53449>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.471913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.31155>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.980385>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3311648>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.486984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.11273>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.37425>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.9034>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.48137>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4220264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.45771>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.99476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.462954>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.97639>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.48997>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.486422>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.98517>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.577>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.408163>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.297226>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.8999>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3973236>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.17092>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.62622>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5446982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.00752>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.42886>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5786605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.6055>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.05281>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5526874>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.817894>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.27135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5465493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.91349>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.31042>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6030757>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.38871>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.63642>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.63642>}
```

```
=(), dtype=float32, numpy=3.7522874>},
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.81818>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.01534>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.8028343>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.76714>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.194756>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5723891>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.09593>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.63996>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.455967>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.63876>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.17641>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4623554>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.75711>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.23516>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5219512>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.53001>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.06926>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4607437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.647964>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.23919>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.408778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.60275>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.2224>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3803527>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.81868>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.397095>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.421582>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.88529>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.402855>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4824364>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.85777>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.37058>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4871917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.087875>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.558586>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.5292916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.74467>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.33258>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.412086>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.528885>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.226364>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3025222>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.41162>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.84689>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5647302>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.70302>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.160484>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5425346>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.89245>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.29749>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5949528>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.39351>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.93115>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.462357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.4962>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.09715>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3990471>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.04931>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.58987>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4594407>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.44877>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.888885>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5598838>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.26153>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.67972>, 'kl_loss': <tf.Tensor: shape
```

```
=(), dtype=float32, numpy=3.5818076>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.076515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.57324>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.503271>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.29613>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.72564>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5704918>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.285065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.721306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5637558>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.20999>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.73265>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4773412>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.08439>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.489426>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5949645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.59324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.08008>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.513158>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.33525>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.00139>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.333863>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.2702>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.82482>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4453788>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.28186>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.843864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4379935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.83624>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.39187>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4443765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.53785>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.206924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3309264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.09175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.66095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4308002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.70065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.25228>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.448372>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.034454>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60282>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4316368>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.00775>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.53924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.468511>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.80026>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.46766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3326008>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.163956>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.81652>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3474364>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.57597>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.188736>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.387237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.74085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.335754>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4050984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.544624>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.04528>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.499347>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.64653>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.11851>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5280259>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.4771>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.02573>, 'kl_loss': <tf.Tensor: shape=
```

```
(, dtype=float32, numpy=3.4513733>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.44368>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.918396>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5252852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.6782>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.3735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3047009>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.287254>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.91641>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3708408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.0989>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59715>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5017502>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.19497>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.75268>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.442292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.80851>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.48799>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3205209>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.12118>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.755775>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3654008>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.121155>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.86241>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.258744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.078415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.649925>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4284873>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.70419>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19863>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.505561>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.077896>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.70274>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3751519>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.483246>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.06296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.420285>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.31706>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.82196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4950988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.5619>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.02531>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5365899>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.66932>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.120766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5485559>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.560074>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.12523>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4348426>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.96535>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.586624>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3787224>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.58595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25771>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3282406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.21951>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.797295>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4222207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.56911>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.09715>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4719543>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.830765>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.33675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4940193>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.85718>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.39371>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4719543>}
```

```
(=(), dtype=float32, numpy=3.4634705>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.10315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.63727>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4658787>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.5584>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.066315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.492086>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.312225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.894745>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.417478>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.39201>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.896126>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.495889>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.51821>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.05949>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4587243>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.5856>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.35199>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2336135>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.19646>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.81003>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3864288>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.23294>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.73772>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4952235>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.22065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.777824>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4428272>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.87789>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.52372>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3541725>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.637566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.3813>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2562637>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.96354>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.682884>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2806544>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.85818>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.541504>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3166733>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.61285>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.097496>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5153527>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.629036>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.11916>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5098717>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.37235>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.792046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.580307>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.31464>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96289>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3517468>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.842514>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.68071>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1618063>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.49133>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.144516>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.346814>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.67314>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36566>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3074787>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.056366>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.67067>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3856997>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.079926>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.700935>, 'kl_loss': <tf.Tensor: sha
```

```
pe=(), dtype=float32, numpy=3.378991>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.56595>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.17293>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3930237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.92548>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.52684>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3986435>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.28881>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.99755>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2912564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.3577>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=76.98661>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3710876>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.95388>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.370026>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5838566>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.82597>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36098>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4649925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.66928>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.18116>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.488118>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.35353>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.88729>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4662423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.33202>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89583>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4361985>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.958046>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.442505>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.5155444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.46384>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.04199>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4218483>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.227974>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.87503>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3529408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7293>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=70.37738>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.351923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.88285>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.37061>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5122344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.26049>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.71161>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5488815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.40483>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.98399>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4208374>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.07134>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69446>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.376883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.633804>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.27142>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3623815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.2816>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.015656>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2659469>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.524956>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.10956>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4154>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.216835>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.81149>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4053452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.74807>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.453094>, 'kl_loss': <tf.Tensor: shap
```

```
e=(), dtype=float32, numpy=3.2949777>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.59831>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.23175>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3665643>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.49982>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.10612>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3936982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.46748>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.044395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.423088>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.33184>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.854805>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4770331>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.48896>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.006096>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.482864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.23359>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.81308>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.420507>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.64257>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.26492>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.377648>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.01313>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.614525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3986046>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.173485>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.85635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3171296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96694>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.61393>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3530128>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.93697>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.46399>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4729843>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.69796>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.160416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5375476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.57306>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.12687>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4461906>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.22149>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.76631>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4551792>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.455414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.120155>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3352585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.330826>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.0969>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2339234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.87817>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.22036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.657809>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.39221>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.768715>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6234932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.88466>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43739>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4472687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.39012>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.893684>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4964395>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.92184>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.359886>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.561952>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.09283>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.55055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.423088>}
```

```
=(), dtype=float32, numpy=3.5422769>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.08444>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.68093>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.403508>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.40757>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.983795>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.423772>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.71158>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.19009>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5214913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.485435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.92759>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5578437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.84315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.365005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4781444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.70075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.34031>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3604398>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.74623>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.293686>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4525466>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.67763>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.229515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4481149>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.18655>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84716>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3393886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.593544>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.25899>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.334558>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.21009>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.827194>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.382895>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.86151>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.517944>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.34357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.61914>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.29566>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3234768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.25213>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.76842>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4837089>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.13823>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.75353>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3846993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.78072>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.31793>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4627883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.949295>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.55126>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3980362>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.14625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.64099>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5052598>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.37068>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.87384>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4968452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.93927>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.435905>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5033634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.15172>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.66843>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4832902>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.043396>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.58355>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4781444>}
```



```
e=(), dtype=float32, numpy=3.4598439>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.025505>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7788>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2467053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.958435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.6886>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2698402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.678635>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28163>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.397002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.15587>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.793495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3623734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.475815>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.10525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.370565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.64362>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.19324>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4503887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.94104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.40201>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.539032>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.34568>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.93196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4137168>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.38536>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.10661>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2787476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.84575>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.39569>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.450055>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.85031>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.39714>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4531684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.39139>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.95805>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.433331>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.18025>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.75129>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4289634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.42386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.89023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.533629>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.83647>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.38178>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.454689>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.11356>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.8328>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2807648>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.161644>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.913376>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2482655>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.26666>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.759796>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.506864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.60342>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.14581>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4576066>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.455826>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.98071>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.475113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.42941>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.9162>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5132146>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.974655>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.47251>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.47251>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.47251>}
```

```
=(), dtype=float32, numpy=3.5021408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.2052>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.71741>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4877892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.2378>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.754005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4837983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.22366>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.80043>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4232337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.8199>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.525925>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2939744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.96713>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.70325>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2638848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.52064>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.052505>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.468132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.712585>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.28968>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4229057>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.88431>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.44614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.438169>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.375534>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.953545>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4219933>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.85673>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4301255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.42512>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.0771>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3480117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.87692>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.613335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.263588>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.403694>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.993675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4100215>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.49361>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.040085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4535184>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.020386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.52307>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.497316>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.65215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.14714>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5050132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.575226>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.1573>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.417921>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.78722>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.44491>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3423042>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.51424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.163155>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3510792>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.07641>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4814594>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.69884>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.15947>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5393677>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.158516>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.60557>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4814594>}
```

```
e=(), dtype=float32, numpy=3.5529456>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.482>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04593>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4360747>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.82615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.44898>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3771682>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.968254>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.557816>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.410441>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.22619>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.80668>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.419513>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.36231>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.01988>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3424325>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.131195>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.901695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.229496>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.482315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.20075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.281564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.999664>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.66067>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.339>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.06281>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.57732>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.485499>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94258>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.45735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4852257>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.60457>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.08712>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5174491>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.214355>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.726616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4877365>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.793076>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28179>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5112844>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.18177>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.68128>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5004864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.84738>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.42855>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4188333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.26491>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.96203>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3028786>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.2451>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.73815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.506949>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.70904>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.16141>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.547631>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.64177>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.02242>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6193428>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.06081>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.56694>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4938629>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.46424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0763>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3879375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.65458>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.168396>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4004864>}
```

```
e=(), dtype=float32, numpy=3.4861832>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36652>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72432>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.642205>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.47714>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99463>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.48251>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.37061>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.86552>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5050988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.896835>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.45026>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4465785>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.951256>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.532104>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.419152>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.08663>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.69741>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3892186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.46811>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.30679>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1613188>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.739494>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.423>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3164952>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.5598>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.212585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3472123>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.88538>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.55519>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.330195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.3869>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.969055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4178467>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.82727>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.487175>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3400948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.07945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.71816>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3612912>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.86568>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.498375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3672981>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.76232>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.393135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3691888>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.57041>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.176476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3939393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.90894>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.55845>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.350495>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.3885>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.00904>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.379458>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.2695>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.80818>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4613202>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.65751>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.15503>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5024776>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.875534>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40945>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4660885>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.07911>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.645004>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.330195>}
```

```
e=(), dtype=float32, numpy=3.4341035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.512695>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.13601>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3766885>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.08535>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.492744>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5926042>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.887825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.26283>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6249912>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68126>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.051125>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6301353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.626274>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6279671>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.592575>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10052>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4920602>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.516525>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.0725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.44402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.95892>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.593475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3654475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.7433>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.37418>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3691204>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.24032>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.82929>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4110227>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.00382>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3218398>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.990875>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.579956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4109159>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13272>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.65674>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.475982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.73858>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.387695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3508854>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.119644>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.76882>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3508244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.1558>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.75039>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4054093>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.106995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.664604>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.442387>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.9659>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.6078>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.358096>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.05041>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.642784>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.407626>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.155266>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.795235>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3600287>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.93137>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.62034>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3110344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.64382>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.264305>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.407626>}
```

```
e=(), dtype=float32, numpy=3.379519>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.692665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.39701>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.295655>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.09212>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.60972>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.482397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.76047>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.28454>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.47593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.636024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.24635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3896713>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.03961>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.66204>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3775706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.32007>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.81694>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5031288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.398964>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.8436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5553699>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.52092>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.030334>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.490588>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.26787>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.791405>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4764633>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.795746>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.27933>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5164177>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04252>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.585144>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4573777>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.30492>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.857414>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4475036>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.995384>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.633865>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3615203>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.869316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43327>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4360435>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.31602>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.781044>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5349746>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.05033>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.53964>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5106895>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.098854>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.78322>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.315638>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.52295>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.12116>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4017844>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.46401>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.072296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3917172>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.32476>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.95452>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3702385>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0143>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.72932>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.284982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.70261>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.19842>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.379519>}
```

```
=(), dtype=float32, numpy=3.504187>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.579605>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.14963>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4299748>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.95122>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.414986>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5362334>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.90591>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.46147>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4444375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.026825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.825226>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2015967>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.748604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.396706>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3519>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.214584>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.8507>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3638809>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.5863>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.17509>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4112206>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.94731>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.43608>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.511228>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.90855>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.56525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3432965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.48646>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.17901>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3074493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.885086>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43214>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4529476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.96568>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.52986>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4358208>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.010704>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.53861>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.472094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.31752>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.73094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5865808>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.45322>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.8291>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6241112>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.21805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.915184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3028622>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.770134>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.65115>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1189778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.84628>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.44561>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4006705>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.88533>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.380516>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5048118>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.73913>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.35314>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3859863>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.95492>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.46115>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4937642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.905014>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.21912>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4006705>}
```

```
e=(), dtype=float32, numpy=3.6858974>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.27662>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.46126>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.8153641>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69811>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36809>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3300223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79873>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36692>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.431807>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.02882>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.557495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4713242>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.81572>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.46819>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3475301>}
Epoch 10/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.88258>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.56996>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3126197>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.41599>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.061005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3549912>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.206406>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.89147>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3149314>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.96944>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.64571>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3237221>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.73413>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.352974>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3811584>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.76069>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.33364>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.427045>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43186>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.03247>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3993943>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60815>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.18342>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.424731>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.58253>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.43202>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1505077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.43212>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.09075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3413727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.64582>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.17407>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4717453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.205864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.741516>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4643502>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.7987>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.33456>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4641426>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.83444>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.43622>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3982234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.29938>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.88096>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4184165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.99886>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.51521>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4836526>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.93492>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.17407>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4717453>}
```



```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.51862>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.416298>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.56411>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.11081>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4532971>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.673355>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.1737>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4996593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.24269>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.74628>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4964154>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.29132>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.80939>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4819362>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.55003>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.06257>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.487465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.53195>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.051025>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4809272>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.16798>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.82073>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3472416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.612206>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.33727>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2749352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.755745>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.50849>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2472515>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.87464>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.49275>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.381886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.63384>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.30332>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3305187>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.963425>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.44318>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.520246>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.48746>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.141846>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3456154>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.49702>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.18831>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3087106>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.18388>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.81496>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3689232>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.199326>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.861084>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3382404>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.14165>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.80534>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3363006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.73055>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.394455>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.336097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36957>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.92864>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4409256>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.91925>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.343056>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5761979>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.55375>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=78.99981>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5539405>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.807915>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.320206>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4877095>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.60656>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.214455>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3921037>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.431015>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.99591>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.435103>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.24096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.77128>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4696815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69301>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.20556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.487451>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.6225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.186935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4355583>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.07014>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.61847>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4516702>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.684746>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3591816>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.12438>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.61118>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5131996>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.57019>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.02126>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5489247>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.764>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.289825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4741776>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.18576>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.736465>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4492912>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.54455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.0914>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4531446>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.84787>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.46723>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3806367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.86232>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.631546>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2307734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.97235>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.698074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2742736>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.6321>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.215096>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4170089>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.11644>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.78256>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3338752>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.664925>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.425606>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2393212>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.2682>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.11214>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1560633>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85449>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.5863>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2681916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.134476>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.720825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4136543>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.76557>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.134476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4136543>}
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=73.36152>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.404056>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.32806>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79664>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5314178>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.92447>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.3924>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.532063>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.88065>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.533005>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.347651>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.051796>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.70032>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3514774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.11835>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.75285>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3654919>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28711>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.778984>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5081267>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.26259>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74286>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5197272>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.03373>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.57723>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4564958>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.465805>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.10095>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.364853>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.52289>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.1998>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3230891>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.4436>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=74.238785>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2048168>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.03248>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79286>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2396133>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.1409>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=74.76399>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3769035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.79892>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.395966>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4029527>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.81618>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40461>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.411567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.28327>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.93592>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3473496>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.61748>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.3264>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2910728>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.59113>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.22046>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3706772>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.702255>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.29779>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4044623>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.043594>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.429955>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.6136405>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.47878>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.01214>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4666467>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.280266>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.8402>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4400659>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.53303>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.19837>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3346572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.979065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.54399>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4350746>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.810005>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.288734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5212739>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.54759>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.028625>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.518969>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.896484>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.42445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4720283>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.12458>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.73425>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.39033>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.435684>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.06738>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3683>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.814064>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.421005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3930562>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40151>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.98799>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4135227>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.54327>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.13157>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.411695>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.8599>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.46316>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3967452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.5233>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.099014>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4242854>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.95927>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.51245>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.446814>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.747765>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.29695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4508157>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.50897>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.10265>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4063187>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.71617>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.257545>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4586244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.11998>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.72415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.395829>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.28249>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.92588>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3566117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.23713>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.75719>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4799423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.71791>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.28258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4353306>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.08783>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.621635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4661903>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.235596>, 'reconstruction_loss':
```

loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.813416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4221787>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.58292>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1123>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4706216>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.3325>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.98319>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.349305>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.418045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.151794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.266252>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.88853>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50893>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3796012>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.52295>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.034676>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4882748>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.82737>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1257>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.7016678>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.8165>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.25285>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5636418>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.63127>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.2209>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4103668>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.06701>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.816086>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.250922>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.45625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.90999>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5462646>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.09967>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.47476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6249092>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.57004>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.14631>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4237309>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.46305>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.05269>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4103603>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.754196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.354416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.399779>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.35274>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2491345>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.628914>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.321075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3078408>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.20227>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.83671>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3655617>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.48248>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.05414>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4283454>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.5756>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.18111>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.394493>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.931786>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.52617>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4056175>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.5037>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.08421>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4194903>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.694084>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.05269>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4103603>}

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.271935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4221504>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.12395>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.73375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3901963>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.75862>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.39575>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.362873>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.026634>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59082>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4358163>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.68275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.24591>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4368362>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.111565>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.7115>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4000633>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.24161>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.86066>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3809514>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.475716>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.06909>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4066262>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.43581>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.98478>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4510276>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.84912>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.41463>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4344916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.38906>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.03403>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.355035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.08452>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.77672>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3077996>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.9467>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.60465>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3420463>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.22882>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.87123>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3575866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.92725>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.45195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4753013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.89958>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.478775>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4208074>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.36583>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.903187>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4626453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.6886>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.37762>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3109856>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.93272>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.59115>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3415692>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.235405>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.850975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3844326>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.880455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.47614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4043145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.14963>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.7369>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.412725>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.22468>, 'reconstruction_loss':
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=67.87366>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.351022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.62966>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.29319>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3364716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.510345>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.043755>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4665885>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.47127>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.99312>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4781518>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.82531>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.36402>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.46129>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.397766>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.94408>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4536872>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.31565>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.79479>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5208607>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.54757>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.89194>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.6556334>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.004074>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.29408>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.7099938>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.08494>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.59969>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4852455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.52847>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.167336>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.361137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.10462>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.72606>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3785641>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.16824>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.704765>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4634743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.90545>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.50114>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4043145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.9909>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.62613>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3647714>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.10443>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79077>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3136597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.240654>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.88878>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.351876>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.4477>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.042435>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.405267>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.14706>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.729034>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4180236>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.53899>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.07141>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.467579>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.1027>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.74106>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3616414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86654>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.61052>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2560163>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.819275>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.332954>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.486318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.08636>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.629875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4564795>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.989395>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.46614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.523252>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.59282>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.19702>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3957958>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.030846>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69097>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3398712>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.37451>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97457>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3999412>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.33862>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5031257>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.659096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.13889>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5202022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.33377>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.89674>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4370277>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.77541>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.25989>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5155272>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.59558>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.07859>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5169892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.410614>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.96527>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4453418>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.35074>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.81223>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5385048>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.96291>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.48714>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.475778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.73803>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.41541>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3226197>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.714516>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.285576>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4289393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.83068>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.4131>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.417579>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.22978>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.80996>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4198246>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.05541>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.75482>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3005931>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.447296>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.04897>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3983212>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.06134>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.64199>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.419349>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.150444>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.75572>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3947206>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.48642>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.41541>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3226197>}
```



```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.06045>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4259708>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.41615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.127556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2885997>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.63381>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.33973>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2940826>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.22836>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.90313>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3252308>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.10625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.7567>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3495522>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.80312>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.35128>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4518456>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.03015>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.5635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.466648>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89721>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.50729>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3899179>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.87425>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41889>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4553618>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.08313>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.8272>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.255925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.36161>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.04959>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.31202>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.351204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.91085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4403534>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.78743>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.39492>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3925118>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.430016>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.15407>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2759445>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.35717>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.045525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3116431>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.399155>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.17704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2221131>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.48848>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.13007>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3584075>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21989>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.80186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4180284>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65536>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.34501>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3103518>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.752556>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.38695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3656101>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.401245>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.9644>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4368424>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.942276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.48411>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4581656>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.31333>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.84698>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.466354>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.96426>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.58439>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3798687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.247185>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.897964>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3492234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.89591>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.581535>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3143775>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72245>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.32226>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4001937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.028305>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.60539>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.422914>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.53398>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.09469>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4392915>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.473206>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.052605>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4205983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.47689>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.05026>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4266293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.84996>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.37992>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4700432>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.649>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=70.248314>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4006894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.855865>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.386894>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4689705>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.99137>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.57591>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4154572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.83809>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.63347>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2046185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.840866>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.496925>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3439412>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.71762>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.281364>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.436253>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.6145>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.23001>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3844943>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.4153>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=70.10999>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3053043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94411>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72129>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2228127>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.341644>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.08733>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2543075>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.09694>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.799484>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.297456>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.93275>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.46453>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4682133>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.203316>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.75739>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4459229>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.843414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.329796>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.513617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.69625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.37186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3243918>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.3848>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.22704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1577587>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.87208>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.54515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3269298>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.99531>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.71343>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.281878>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.446724>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.10033>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3463998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.39549>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.044136>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3513596>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.8742>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.513084>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.361117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.35645>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.99298>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3634727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.8215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.563416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2580845>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.7303>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.39518>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.335125>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.48449>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.9472>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5372913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.12335>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.71475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4086006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.0889>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.66398>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4249206>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.92197>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.504395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4175758>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96123>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.5824>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.37883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.65453>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.20573>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4488037>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.883766>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.50862>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3751419>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.616135>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.31018>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3059516>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.182274>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.87864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3036354>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.42789>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.9587>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.469181>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85275>, 'reconstruction_loss':
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=68.32895>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5238051>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.026024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.616234>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4097905>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.65001>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.280754>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3692544>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.21328>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.866356>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3469265>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.80574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.54924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2564971>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.87094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.461205>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4097397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.13852>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.718254>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4202645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.15552>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.840324>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3151925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10269>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.69913>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.403565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.66393>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.250114>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4138184>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.71472>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.28772>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4270053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.840225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.38316>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4570649>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.11817>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65428>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4638925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.701096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.29072>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4103782>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.97436>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.59616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3781981>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28417>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.90499>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3791835>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.4456>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.15972>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2858799>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.47856>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.17931>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2992477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.444214>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.04584>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3983734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.19987>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4569116>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.114365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.728386>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3859768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.8341>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.43536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3987331>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.83873>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.114365>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3859768>}
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.54262>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2961159>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.88709>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.68661>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2004838>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.44788>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.85396>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.593928>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.889175>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.328804>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.5603688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.435715>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.03116>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.404553>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.78068>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.32043>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4602475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.467476>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.93348>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5339997>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.575714>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.05315>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5225716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.39034>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.018394>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3719468>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.8124>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.42474>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3876579>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.176605>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.71464>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.461965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.88496>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.37709>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5078666>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.44502>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.999176>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.445847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.10206>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.75522>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3468375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.30574>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.87344>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.432296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.04004>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.600845>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.439196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.51064>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.17903>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3316085>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.003944>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.6805>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3234496>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.561676>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.2045>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.357174>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.336136>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.02643>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3097115>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.95141>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.655075>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.296331>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.535645>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.08535>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.450296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.48705>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.132484>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.35457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.11493>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.681946>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.432986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.444565>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0774>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3671684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.708984>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.254906>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4540825>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.97244>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.54108>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4313636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.4117>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=70.97493>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4367642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.52548>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.0884>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4370835>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.75498>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.350746>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.404234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.54112>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.30467>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2364488>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.39563>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.12792>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.267706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.19546>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81394>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3815129>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.647255>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.31023>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3370285>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.95671>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.60713>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3495774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.7727>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.33765>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4350486>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.296906>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.76936>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5275402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.75527>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.35418>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4010932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.63161>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.35918>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2724319>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.37334>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.951004>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4223309>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.3349>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=68.89654>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4383597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.642944>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.233246>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4096947>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.602585>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.19961>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4029775>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.544685>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.04783>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.49686>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.35219>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.949875>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4023101>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.70147>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45548>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.24599>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.58732>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.383095>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2042224>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.70679>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.265274>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4415145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.008804>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.61211>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3966947>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.02456>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.59516>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.429399>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.11111>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.63396>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.47715>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.41803>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94542>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4726117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.56549>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.10277>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4627197>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.612686>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.15486>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4578233>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.83604>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.45428>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3817596>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.03219>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.77259>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.259597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.429474>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.198555>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.230919>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.02302>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.580124>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4428966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.116455>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.71244>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4040172>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.26229>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.849205>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4130828>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.013176>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.628975>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3842025>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.83228>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.45596>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3763185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.70375>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.390335>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3134186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.35143>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.12059>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2308457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.73571>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.36847>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3672402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.951935>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.55304>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3988972>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.47814>, 'reconstruction_l
```

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.047195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4309456>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.011536>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.56557>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4459674>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.21287>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.85343>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3594391>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.06163>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.76239>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2992363>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.61698>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.31576>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3012233>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.62592>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.215515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4104104>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.067665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.604576>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.463089>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.69664>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.22552>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.471126>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.98226>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.615036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.367223>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.34927>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.018486>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3307915>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.497116>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.14644>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3506813>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.795784>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.4229>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.37289>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.90986>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.60281>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3070462>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.55753>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.33867>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.218864>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7779>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.5053>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2726014>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.199234>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.86478>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.334455>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.18102>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.71208>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.46894>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.38596>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.92778>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4581833>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.95814>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.48406>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.474072>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.58141>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.13137>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4500458>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.183174>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.71789>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4652889>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.456604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.011734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.444867>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.129074>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.011734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.444867>}


```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.76146>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3676143>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.54021>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28523>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.254973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.62367>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.19574>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4279296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.22461>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.767876>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4567323>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.222946>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.69027>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.532679>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.54642>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.1377>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.408715>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.92826>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.61558>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3126838>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.2996>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.91343>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3861718>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.86602>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.33275>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5332687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.00987>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.60609>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4037852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.741714>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.28396>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.457753>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.42199>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.009415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4125748>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.39371>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.9937>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4000103>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.77988>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.42142>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3584626>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.789444>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.65202>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.13742>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.01434>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.70865>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3056984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.105675>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.76535>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3403244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.288>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.97514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3128617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.72813>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.32363>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4044983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.46102>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.14415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3168728>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.51429>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.18283>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3314567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.29351>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94433>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.349181>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.182976>, 'reconstruction_loss':
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82922>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3537533>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.05187>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.707405>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3444657>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.35369>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.05205>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.301641>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.762505>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.437965>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.32454>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.59239>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.2026>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.389791>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.211334>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.79949>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4118447>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.454315>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.07972>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.374597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.78186>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.434784>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3470738>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.052315>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.73017>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.322145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.76609>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.248405>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5176842>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.46569>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.933464>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5322251>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.05029>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.50894>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.541349>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.76772>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.22276>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5449574>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.98657>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.568825>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4177494>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.01>, 'reconstruction_los
s': <tf.Tensor: shape=(), dtype=float32, numpy=69.62457>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3854299>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.53254>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.20032>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3322227>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.407936>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.061264>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3466702>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52797>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.16022>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3677497>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.87095>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.62086>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2500916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.52435>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.17916>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3451896>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.79366>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.38256>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4110997>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.39005>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.07544>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3146138>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84524>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.522446>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3227897>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.70171>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.32106>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3806548>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.7316>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.319954>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4116426>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.34968>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.011086>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.338594>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.49968>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.10293>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3967488>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.78383>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.44339>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3404374>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.36288>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.055504>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3073711>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.19217>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.82015>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3720174>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.02027>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.71847>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3018005>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.38422>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.89307>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4911518>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.157585>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.70271>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4548745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.102936>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.732346>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3705888>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.48408>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.13118>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3529>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.876884>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.40689>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.469991>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.636795>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.13336>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5034359>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.930275>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.52184>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4084325>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.84179>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.440506>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.401284>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.18514>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7365>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.448639>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.540764>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.15671>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3840568>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.86769>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.49234>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3753502>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.56614>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.26817>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2979672>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.34146>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.97555>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3659172>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.75589>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30611>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4497857>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.63362>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.21938>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4142349>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.52873>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.26579>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2629368>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.05372>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.70501>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.348706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.899414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.554184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.345227>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.88401>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.55369>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3303192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.54474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.29299>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2517478>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.01909>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.54258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4765105>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.14362>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.730286>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.413337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40486>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.89895>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.505909>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.145386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.71354>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4318442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.542595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.349915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1926827>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.26353>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.923256>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3402705>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.915825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.575005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.340817>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.11996>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.7344>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3855617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.24895>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.7706>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4783502>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.49869>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.1792>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3194923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.77343>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.4777>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.295732>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.983315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.54452>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4387937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.260864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.83554>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.425321>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.22203>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.78141>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.440617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.6571>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.12236>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.534736>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.02161>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.49181>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5297966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.80725>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.56477>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.242474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.42578>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.35771>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.068071>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=86.084564>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.730705>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.353859>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.243706>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.794876>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4488301>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.102776>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.76215>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3406196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.51112>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.06768>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4434452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.32287>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.695366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6275032>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.85417>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.12029>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.733878>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.18945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.92285>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2666042>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43031>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.065216>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3650978>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.69198>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.27791>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4140701>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.02336>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.68872>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3346393>}
Epoch 11/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32338>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.01875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.304625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.97551>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.63074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3447723>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.00673>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.71515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2915814>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.40978>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.11574>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2940464>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.92974>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.579956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3497825>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.26559>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.876>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3895848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.82667>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.454704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3719642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.99774>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.60184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3959038>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.915474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.7828>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.132674>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.07659>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.77547>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3011239>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.07359>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.65661>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4169858>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.562805>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.16141>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4014015>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.83892>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.42463>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4142938>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.244675>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.88826>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3564122>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.94551>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.59394>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.351569>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.59475>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.19219>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.402554>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.383484>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.04229>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3411927>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.2008>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.80522>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3955746>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.28416>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.859604>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4245534>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84881>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.43278>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4160323>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.78075>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36385>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4168968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.85484>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41124>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4436016>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.073654>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.637634>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.436018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.667786>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.3447>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3230805>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21234>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.947685>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.264658>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.39707>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.15518>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2418926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.328926>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.96366>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3652668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.910324>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.58224>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3280888>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.442505>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94349>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4990196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.065735>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.73173>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3340104>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.002686>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.69897>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.30372>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.84159>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.48143>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3601632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.63806>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.29988>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.33818>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.54257>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.211235>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3313384>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.21219>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.882935>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3292572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.917145>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.49123>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.425916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.474815>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.933075>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.541739>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.802666>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.28225>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.520417>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27748>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.83646>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4410233>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25098>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.91454>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3364315>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.990364>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.60665>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3837132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.70868>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.28174>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.426941>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.26482>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.83182>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.433001>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.168755>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81063>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3581252>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.50766>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.12256>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3850975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.97229>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.673164>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2991261>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.58702>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.14066>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4463592>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.999626>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.538506>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4611206>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.35589>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.95774>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3981462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.66939>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.28945>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3799376>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.99619>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.61742>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3787742>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32654>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.01081>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3157234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.50333>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.3062>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1971307>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.44513>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.20857>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2365537>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.07479>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.715744>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.359045>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.44696>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.14586>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3010979>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.38958>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.19285>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.196735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.87223>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.73714>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1350913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.06867>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.80346>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2652164>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.09951>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4046333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.23234>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84928>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3830535>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.55204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05048>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5015538>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.456665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.97246>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4842033>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.7632>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.439674>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.323527>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.50233>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.145134>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3571954>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.763824>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.38721>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.376617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.935455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.43697>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4984794>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.79319>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.28735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5058389>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.67668>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.230835>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4458435>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.97961>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.60374>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3758724>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.03441>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.68366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3507454>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.902176>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.65761>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.244564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.47108>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.21451>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2565658>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.57969>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.20375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.375935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.382545>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99363>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.388916>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.18398>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.787796>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3961842>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.42714>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.11148>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.31566>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.07428>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.80784>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.266444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.98449>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.64547>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3390193>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.01708>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.66546>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.351626>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.45049>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.93326>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5172324>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.90607>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.5373>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3687668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.82924>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.48418>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3450615>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.943474>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.683784>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.25969>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.516525>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.173615>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.342914>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.548035>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.12588>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4221592>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.01596>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.59462>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4213424>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.69609>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.311584>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3845038>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.6474>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=66.327736>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.319661>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.773>, 'reconstruction_los
s': <tf.Tensor: shape=(), dtype=float32, numpy=67.46314>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3098571>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.330055>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.98422>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3458328>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.93312>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.55852>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3746028>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.25942>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.883644>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3757768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.45753>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.0888>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3687313>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.30525>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.90921>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3960457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.59917>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.17681>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4223595>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.33598>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.905>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4309814>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.05565>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.6631>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.39255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.0983>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.66791>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.430387>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.56874>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.2066>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.362146>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15029>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.827>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3232884>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.93373>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.49555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.438176>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.59565>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.20803>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3876197>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.70347>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.27766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4258149>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.85907>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.46164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3974323>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.02502>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.57235>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4526658>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.913025>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.57693>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3360982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05703>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.78995>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2670841>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51103>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.15034>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3606956>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.12031>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.643555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4767566>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.59941>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.91481>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6846035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.39652>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.8404>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5561233>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.012436>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.6063>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4061332>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.74225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.489876>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2523727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.79798>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.244255>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5537288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.49035>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.87203>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6183147>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.890625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.51293>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3776956>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.69138>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.31847>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3729196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.09234>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.72205>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3702874>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.796646>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.56143>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.235218>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.14306>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.85989>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2831664>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60544>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.27292>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3325226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.96926>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.592735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3765235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.99104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.65269>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3383553>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.41902>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.06187>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3571525>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.01639>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.63222>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3841732>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.22372>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.82451>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.399208>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.71515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.35452>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3606288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1308>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.7935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3372986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.56157>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.151924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4096477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.031265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.620674>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4105904>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.326744>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.95389>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3728585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.689735>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.35991>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3298244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.005035>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.64226>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3627777>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.87548>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.47411>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.401369>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.310745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.920944>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3898041>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.907776>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.591515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3162637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.23683>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.96647>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2703629>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.19382>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.925804>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2680092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.530106>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.25843>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.271672>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.458275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.067894>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3903794>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.34403>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.00401>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3400223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.88874>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.5033>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3854413>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.170815>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.89964>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2711682>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.22769>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.9294>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2982948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.862526>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.52686>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3356614>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.35144>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.00189>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3495452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74492>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.36385>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3810687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.76263>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.43994>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3226883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.16942>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.842026>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3273895>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.8936>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43502>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.458583>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.22157>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.75841>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.463168>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.5449>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.102875>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.442025>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.930176>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.50086>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.429316>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.91817>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.42496>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4932065>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.96626>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.337906>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.6283538>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.474655>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.796585>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.6780734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.69444>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.228836>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4656098>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.97834>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.624344>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.353995>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.65174>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.30475>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3469925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.81749>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.383446>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.434042>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.45008>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.06863>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3814557>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.533585>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.194824>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3387642>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.445335>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.13658>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3087509>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36646>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.03379>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3326735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.97001>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.589>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3810112>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.84478>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.457886>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3868966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.06468>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.63922>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4254632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.68955>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.34954>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.340009>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.570564>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.33818>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2323818>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.524315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.071884>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4524307>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.74816>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.31469>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4334748>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.20309>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.67596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5271325>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.98094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.57367>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4072711>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.43252>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.09319>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3393273>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96693>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.57228>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3946443>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.39082>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.89512>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4957054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.296295>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.7752>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5210915>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.89631>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.46266>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.433644>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.29123>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.781265>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5099654>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.044266>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.55454>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4897218>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.164314>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.74329>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.421022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.23706>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.513905>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45214>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.99799>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4541478>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.18>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.880554>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.299446>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.280396>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.88975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3906465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.406265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.025154>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3811111>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.777725>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.40625>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.371476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.61366>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.343834>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2698264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.06978>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.70772>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3620567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.72742>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.345726>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3816898>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.49758>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13136>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.36622>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.80215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40689>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.395258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.06656>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.81097>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.255591>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.127975>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.85912>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2688537>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.6187>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.32175>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2969506>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.7457>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.42368>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3220146>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.38321>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97859>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4046197>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.64195>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.22406>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.417894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.52934>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.18052>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3488212>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.32669>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.90872>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.417968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.69436>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.46782>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2265365>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.97882>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.68718>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.291645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.042175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.637054>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4051201>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.32555>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.9508>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.374749>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.9133>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.65125>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2620435>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.02943>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72824>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3011856>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.05811>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.83655>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2215683>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.94217>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.59359>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3485782>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66557>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.25685>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4087234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.006775>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.69308>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.313696>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.129814>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.76813>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3616874>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.874886>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.436325>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4385586>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.48977>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.025795>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4639716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.63639>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.17197>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4644248>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.54174>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.18432>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3574204>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.771774>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45909>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3126793>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.4243>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.14165>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.282653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.34501>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.98169>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3633225>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.53629>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.13904>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3972564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.83585>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40227>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4335837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04293>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.64273>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4001973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.867004>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.4779>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.389103>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.32129>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.91459>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4067028>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.238335>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.888115>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.350223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.51746>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.08688>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4305813>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.24047>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.84905>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3914173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.284164>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.09951>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1846528>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.30722>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.005486>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3017387>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.36066>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97921>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3814476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.22859>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.90013>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3284638>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.86248>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59728>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2652001>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.54782>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.36383>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1839936>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.93539>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.7312>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2041867>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.6846>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=74.44203>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2425704>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36752>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.95984>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4076817>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.70704>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.334236>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3728004>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.18062>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.74508>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4355369>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.17418>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.904854>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2693276>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69093>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.57881>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.112122>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.350365>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.096245>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2541203>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.544624>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.33134>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.213285>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.94381>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65042>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.293389>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.82449>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.51759>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3068976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.35205>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.04629>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3057594>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.848785>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.53054>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3182487>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.06556>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.83411>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2314498>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.2054>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=75.895805>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3095937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.05635>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.56197>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4943748>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.79863>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41002>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.388614>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.80122>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.39541>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4058144>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.2968>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.900375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3964207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.46183>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.1021>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3597312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.844315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41951>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4248016>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.33962>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.964775>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.374846>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.16364>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.837425>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.326219>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.73986>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.41338>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3264751>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.79513>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.33106>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.464068>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.144615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.629295>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5153198>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.57473>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.17091>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4038177>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.92871>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.55437>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.374347>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.50435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.16613>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.338216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.0452>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.79691>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2482858>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.49607>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.13218>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3638942>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.61145>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.2507>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.360749>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.66707>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.4125>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.25457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.60577>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.27544>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3303306>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.78157>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.433365>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3482063>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.320984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.97417>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3468158>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.0692>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.69309>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3761077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.48255>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.11662>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3659294>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.31919>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.00283>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.316359>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.57254>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.28013>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.292408>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.83414>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.52986>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3042755>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.013145>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.7811>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2320466>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.030525>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.77486>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2556717>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13077>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.785194>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3455722>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.73895>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32865>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4103043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.762566>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.3982>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3643634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.26394>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.88426>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3796754>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.164024>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.869545>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2944787>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.03414>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84532>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1888192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69487>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.121765>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5731053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.338356>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.806145>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.5322094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.98914>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60825>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3808887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.27161>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.839935>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.431673>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.06065>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.58926>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4714007>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.93879>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.48952>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4492726>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.93555>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.62942>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3061275>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.52909>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.20965>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3194442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.59125>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.19633>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3949199>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.53346>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.0842>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.449266>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.84004>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.44047>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.399575>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.46905>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.153076>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.315971>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.72667>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.327896>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3987763>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.55775>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.17239>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3853524>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.218735>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.9389>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2798336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.564575>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28977>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2748036>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.21635>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.91168>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3046653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.72663>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.45899>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2676399>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.4639>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.2064>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.257499>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.00853>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.62006>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.388466>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.92333>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.63595>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2873864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.52171>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.15726>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3644547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04163>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.73719>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3044422>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.16107>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.775185>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.385891>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.7113>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.35076>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3605437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.13393>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.768906>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3650234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.00551>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.627846>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3776603>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.42334>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.083015>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3403277>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.00751>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.81084>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.196668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.75044>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51898>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2314618>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69658>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36438>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3321967>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.044945>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.74379>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3011537>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50058>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.19255>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.30803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.29852>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.89886>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3996644>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.918846>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.44414>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4747105>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.39262>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.01694>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3756824>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.08032>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82265>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2576745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.841446>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.447876>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3935668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.79353>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.3723>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4212322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.34704>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.95555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3914864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.87897>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.49004>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3889263>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.06446>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.60299>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4614692>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.900406>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.53023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3701806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.15721>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.93139>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2258232>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.05066>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.86848>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1821828>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.247696>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.85139>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3963082>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.51645>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.18602>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3304267>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.656334>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.299416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.356915>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59849>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.18909>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4094043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.81175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.41398>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3977723>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.12571>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.73367>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3920364>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.07803>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.68449>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3935485>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.30753>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.99017>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3173585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.515015>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.29658>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2184365>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.962845>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.77217>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1906772>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.52992>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.15538>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3745384>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.77932>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.44116>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3381553>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.85386>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.502914>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3509414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.35998>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.02283>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3371506>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.42588>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.10003>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3258522>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15613>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.88604>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.270089>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.170105>, 'reconstruction_1
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.96894>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2011654>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.18782>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.850945>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.336874>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.29461>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.91338>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3812225>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.144295>, 'reconstruction_1
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.737175>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4071229>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.53311>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.10484>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4282715>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.52261>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.172356>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.350254>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.48173>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.19037>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2913597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.27769>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.98777>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2899158>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.243576>, 'reconstruction_1
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.84753>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3960476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.56861>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.12676>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.441852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.15991>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.728035>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.431874>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.558945>, 'reconstruction_1
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.219475>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.339473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.762856>, 'reconstruction_1
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.48492>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2779362>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.046875>, 'reconstruction_1
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.74583>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3010483>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.09778>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.76712>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3306587>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.526505>, 'reconstruction_1
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.2618>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2646995>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.13671>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.96086>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1758492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.35602>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.146194>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2098198>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.82007>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.54818>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2718887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.7152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.323326>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3918762>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.86963>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.47973>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3899033>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.48984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.08563>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4042058>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.295876>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.915054>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3808181>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.774025>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.360725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.413302>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84513>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.44144>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4036937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.54265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.21406>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3285909>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.0045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.774086>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2304115>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.235275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.818794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4164836>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.69587>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.25686>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.439014>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.602196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.10089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.501304>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.271286>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.892365>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3789191>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.736115>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.456505>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2796066>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.84192>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.48836>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3535614>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41005>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.90939>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5006557>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.635>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.24731>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3876967>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24608>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79463>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.451449>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.83718>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43851>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3986766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.98008>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.60633>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3737464>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.433044>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.106964>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3260765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.49353>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.37683>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.116696>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.427475>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.14972>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2777581>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.634384>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.31014>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3242378>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.915985>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.60585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3101318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.157196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.75949>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.397709>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.07824>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.78074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2975006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.968735>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.65807>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3106575>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.909325>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59269>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3166375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.890656>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.572235>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3184204>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.555336>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.22932>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.326018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.9337>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.63911>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.29459>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.31078>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.97559>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3351917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.9899>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.587776>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4021237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.68463>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.271095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4135323>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.15268>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.772514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3801684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.24711>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.900097>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.347013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.65615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.339195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.316959>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.28165>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.77917>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.502481>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.793274>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.281334>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5119424>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.5624>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.02639>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5360122>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.25819>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.71366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5445244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.466255>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.04414>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.42211>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.6479>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.26457>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3833306>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.88507>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.56728>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3177853>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.82083>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.50031>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3205185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.03155>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.68489>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3466575>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36388>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.114>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.249876>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.009094>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.676956>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3321373>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.33259>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.95201>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3805766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.91553>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.64117>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2743614>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.29925>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0231>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2761452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.195786>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.869835>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.325953>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.19212>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.83471>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3574176>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.9929>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=68.70869>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2842083>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.12038>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.77846>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3419213>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43475>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.14295>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2918>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94639>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.691246>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2551422>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.52597>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.21997>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.306003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.736176>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.48859>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2475867>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.98346>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.55557>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4278839>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.80142>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40376>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.397656>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.61614>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.30251>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3136268>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.98717>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.67859>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.308579>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.5968>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.176346>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4204597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41365>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.95339>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4602618>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.48895>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.111465>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3774834>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.34181>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.963234>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3785775>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.88187>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.449135>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4327347>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.10217>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.73243>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.369742>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43329>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.07903>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3542533>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.14875>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.873272>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.275479>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.87285>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.53218>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3406684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.29558>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.882034>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4135451>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.51389>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13386>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3800359>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.16295>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.9224>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2405503>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.64442>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.326065>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3183486>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.35405>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.05572>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2983353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.459816>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.17737>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2824452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.989944>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.78542>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2045243>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.625916>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21642>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4094892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.53916>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.193954>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3452048>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.92239>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.49272>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4296699>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.84395>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.476395>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.367556>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.075905>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.92024>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1556652>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.81531>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.51978>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.295528>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.50891>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.23246>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2764542>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.56197>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.24524>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3167374>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.86585>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.45496>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.41089>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.041626>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.77408>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2675483>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.3197>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.05667>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2630334>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.675835>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.266594>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.40924>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.768654>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.37903>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3896275>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.74888>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.33191>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.41697>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.41759>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.911835>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5057564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.66994>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.14304>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5268898>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.33531>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.0685>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.266819>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.03219>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.94019>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.0919986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.54428>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=82.17703>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3672523>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.762505>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.314514>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4479916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.89043>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.54021>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3502166>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.11193>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.66669>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4452393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.747406>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.14864>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.5987632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.42004>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.7173>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.7027335>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74212>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.484344>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2577744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.107735>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.75588>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3518493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.29033>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.916336>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.373991>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.6854>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.41445>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2709482>}
Epoch 12/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.10866>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.86359>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2450702>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.934586>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.652725>, 'kl_loss': <tf.Tensor: sha
```

```
pe=(), dtype=float32, numpy=3.2818615>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.630226>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.386215>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.244011>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.83804>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.5715>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2665443>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.81108>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.47658>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3345025>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.941574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.576744>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3648334>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.393394>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.042076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3513176>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.54497>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.15411>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3908577>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.40103>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.261795>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1392345>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.71366>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.423904>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2897537>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86723>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.48024>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3869965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.15499>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.75289>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.402102>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.49362>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.090576>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4030461>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.98427>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.643776>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3404915>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.62212>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.28027>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3418517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.263405>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.88658>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.37682>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.09389>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.7718>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3220925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68194>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30607>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3758721>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.81104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.41119>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.399859>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32312>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.923706>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3994117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.294044>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.901794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.39225>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.41339>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.008156>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.405233>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.62677>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.23007>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3966968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.14806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3966968>}
```

```
=(), dtype=float32, numpy=3.287706>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.65127>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.4192>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2320676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.13228>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.935375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1969051>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86472>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.55648>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3082435>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.28369>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.00765>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2760406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.769325>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.34029>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4290357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.60219>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.32335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2788367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.737816>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.48023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2575862>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.544136>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.243614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.300525>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.286674>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.01257>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2740982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.40754>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13425>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2732906>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.83225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.53227>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2999778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.65154>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.267075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3844688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.982735>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.48311>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4996254>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.252075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.7668>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.485278>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.76013>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32888>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4312477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.91781>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.570724>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3470826>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.5307>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1423>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.388401>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.29084>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.86041>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4304283>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.88274>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.45266>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4300752>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.729515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.35038>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3791344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.135445>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.74142>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.394027>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.56876>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.267876>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3791344>}
```

```
e=(), dtype=float32, numpy=3.3008904>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13603>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.69606>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.439972>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.62655>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.181175>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4453712>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.92666>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.55635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3703055>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.29339>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.945595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3477902>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.624916>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.26864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3562806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.09671>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.81228>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2844353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.95743>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.79062>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.166806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.851>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65613>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1948717>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.675156>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36907>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3060825>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.96544>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.705315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2601204>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.867455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.70693>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1605215>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.18485>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.064766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1200843>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.88792>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.65253>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2353883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.974464>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.61038>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3640842>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.8881>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.5379>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3501983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.20512>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74288>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4622314>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.98264>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.534676>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4479644>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.01011>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.71334>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2967668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.2135>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.886765>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3267379>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.31226>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.98637>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3258998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.46672>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.035194>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.431523>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.40749>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.950714>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3501983>}
```

```
e=(), dtype=float32, numpy=3.456778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.338036>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.92273>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4153087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43512>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.093056>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.342064>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.263306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3106942>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.63905>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.422714>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2163353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.993645>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.7608>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2328415>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.37614>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.019775>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3563607>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.864845>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.49388>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3709671>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.69956>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.31827>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3812928>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.12481>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.80992>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3148904>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.733696>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.465675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2680233>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.42455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.097305>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3272445>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.67304>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32883>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.344214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.104645>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.60067>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.503971>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.38661>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.0188>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3678145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.280876>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.94267>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3382008>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.55234>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30942>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2429173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97746>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.67269>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3047721>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.127365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.74913>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3782363>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.76063>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.376236>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3843906>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30032>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.95793>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3423946>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.17468>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.89144>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2832406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.20885>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.933716>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3423946>}
```

```
=(), dtype=float32, numpy=3.2751281>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.903824>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.612785>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2910378>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.66102>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.34152>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3194942>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.763885>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.43979>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3240998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.08595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.77164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3143153>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.82613>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.47564>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.350493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.18809>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.814>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.374083>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.92721>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.54337>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3838363>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.86096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50981>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3511524>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.87848>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.485825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3926568>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.09262>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74887>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3437486>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.67227>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.358315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3139565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.10703>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.671906>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4351258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.95219>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.5739>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3782887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.18312>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.775475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.40765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.17944>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3568687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.602615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.20454>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3980782>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.47021>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.181015>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.289189>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.49093>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.26334>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2275815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.00558>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.69428>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3112922>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.754585>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.35906>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3955207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.02635>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.45469>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.571666>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.023>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.56725>, 'kl_loss': <tf.Tensor: shape=
```

```
((), dtype=float32, numpy=3.4557488>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.72947>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40006>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3294098>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.19841>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.99421>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2042031>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.22396>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.722496>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5014615>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.2512>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.6865>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5646946>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.47586>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.12727>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.348589>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.25067>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.91401>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.336663>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.80013>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.45242>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3477097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.30136>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.078415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2229435>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.76803>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.48331>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2847214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.26768>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.92406>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3436215>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.30148>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.9063>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.395183>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.25152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.887596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3639207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.081245>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.733>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3482413>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.65601>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.29618>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3598304>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.90134>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.53843>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.362905>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.11378>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.78515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3286293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.954666>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.671425>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2832375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.07614>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.72892>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3472183>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.67198>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32222>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3497658>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.93838>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.616516>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3218632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.30296>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.03707>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2658958>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.670235>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.37102>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3472183>}
```



```
e=(), dtype=float32, numpy=3.2992172>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.38427>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.03193>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3523383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.69392>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.3602>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3337154>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.41263>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.127716>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2849152>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.69306>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.44077>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.252292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.81641>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.56479>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2516181>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.13955>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.87611>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2634437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.02932>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.64859>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3807297>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.94647>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.60752>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3389518>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.47984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.097153>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.382687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.89717>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.63923>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2579422>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.71322>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.42808>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2851434>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.237854>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.90195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.335904>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.98665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.64876>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3378901>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.29118>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.925514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3656678>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.60336>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.28679>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3165765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.90151>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.585846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3156657>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.42982>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.9779>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.451923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.70216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.257095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4450684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.15263>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.73719>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.415441>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.6117>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.205536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4061694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.62491>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.153824>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4710832>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.66473>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.05899>, 'kl_loss': <tf.Tensor: shape=()
```

```
=(), dtype=float32, numpy=3.605735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.08379>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41521>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6685886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.26846>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.788895>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4795709>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50417>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.13907>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3651047>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.37199>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.024445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3475425>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.53725>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.12009>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4171607>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.14729>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.793304>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.353991>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.22067>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.90403>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3166451>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.05318>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.75864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2945423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.170616>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.844246>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3263733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.5864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.21313>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3732731>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.28707>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.9141>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.372974>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.7887>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.39231>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3963845>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.279434>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.953766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3256645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.211266>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.99614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2151291>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.006386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.57095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4354336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.42346>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.01532>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.408139>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.74544>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.27026>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4751713>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.441345>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.08899>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3523545>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.076706>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.78898>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.28773>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.4989>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.1483>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3506005>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.05597>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.615005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4409642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.82469>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.363464>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3523545>}
```

```
e=(), dtype=float32, numpy=3.4612298>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.51876>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.16711>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3516564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.90308>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.475426>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4276557>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.73548>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.337715>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.397768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.00637>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.65891>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3474555>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.548645>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.11115>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.437493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.0512>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=66.66255>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3886483>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.839485>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60458>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2348983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.70748>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.397125>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3103588>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.81888>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.51421>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3046653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.38681>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.08589>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3009162>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.258194>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.060265>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1979256>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.634254>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.34504>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.289214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45863>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.1485>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3101342>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.08032>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.78324>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2970772>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.3726>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.05103>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3215606>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.58883>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.38162>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2072036>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.75189>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.53311>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2187781>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.25488>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.00453>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.250351>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.26824>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.981094>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2871494>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.01545>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.63907>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3763833>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.37669>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.97995>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3967433>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.21744>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.876976>, 'kl_loss': <tf.Tensor: shap
```

```
e=(), dtype=float32, numpy=3.3404624>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.921814>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.504745>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4170718>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.24053>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.9983>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.242231>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.68283>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.38046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3023667>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.68205>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.27662>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4054306>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.039154>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.66567>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.373478>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.647766>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.38881>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2589583>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.614586>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.31176>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3028255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.494446>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.26447>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2299716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.384285>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.02706>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.357226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.39573>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4105878>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.71737>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.41579>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.301581>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.744156>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.405266>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3388932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.52892>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.12647>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4024494>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.98183>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.55737>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4244542>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.0522>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.62487>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4273314>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.24366>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.924484>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3191743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.44583>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1699>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.27593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.90926>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.67135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2379174>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.089485>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.79444>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2950425>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.09131>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.771935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3193765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.57552>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.21518>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3603406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.61838>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.28023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3404624>}
```

```
=(), dtype=float32, numpy=3.3381515>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.49609>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.15298>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3431206>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.99144>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.62514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3663063>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69464>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.38367>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.310978>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.22092>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.835335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3855813>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.97211>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.614525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.357579>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.907814>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.737>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1708121>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.02616>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.73243>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2937331>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.26437>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89657>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.367803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72122>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.406555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3146706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.506615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.26029>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2463222>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.214485>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.03492>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.179563>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.45027>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.23415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.216114>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.344185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.09182>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2523682>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.014534>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.59436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4201713>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.274994>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.8845>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.390498>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.86613>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.41743>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4487004>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.746704>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.46911>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2775943>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.40181>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.27732>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.124485>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.05129>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.78795>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2633462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.0913>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.85713>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2341676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.45993>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.16442>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2955132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.43336>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.12443>, 'kl_loss': <tf.Tensor: shape=()
```

```
=(), dtype=float32, numpy=3.30893>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04565>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.75089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2947526>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.381226>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.08622>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2950027>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.87209>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.66233>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.209762>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.51706>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.2338>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2832572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.64821>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.18196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4662452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.281906>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.9183>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3636107>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.369125>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.00473>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3643944>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.04587>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.70583>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3400383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.183945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.891975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2919686>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.71007>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.35708>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.35299>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.00401>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.683304>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3207123>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.738976>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.46723>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.271743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43947>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.15975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2797165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.47473>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.060356>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4143777>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.03611>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.564896>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.471212>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25811>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.89856>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3595512>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.582664>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24727>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3353925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.22335>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.91324>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3101127>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69788>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.4607>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.237182>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.319>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.94734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3716552>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.319145>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.943462>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3756828>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.29152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.02139>, 'kl_loss': <tf.Tensor: shape=()
```

```
=(), dtype=float32, numpy=3.2701283>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.048706>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.71535>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3333611>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.59088>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.27108>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3198032>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.06232>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.729065>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3332534>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.75888>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.38043>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3784466>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.27662>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.906334>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.370282>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.21541>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.9078>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3076077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.14653>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.86526>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2812743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.67439>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.38239>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.291999>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.68027>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.45089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2293777>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.62508>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.378784>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2462952>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.67557>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.35404>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3215275>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.42185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.05093>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3709228>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.33797>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.00659>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3313763>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.16717>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.806656>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3605103>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.612404>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.32717>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2852337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.605545>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.419914>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.185627>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.47204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.9473>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5247326>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.118965>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.64122>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4777439>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.47252>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.12077>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3517494>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94894>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.563644>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3852952>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.65959>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.24109>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4184997>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.47426>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.07131>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3517494>}
```

```
=(), dtype=float32, numpy=3.4029434>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.53431>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.26476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2695484>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.06586>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.78277>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2830849>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.18741>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.844276>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3431306>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.15536>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.77335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3820045>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.398705>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04889>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3498135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.13112>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.846176>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2849388>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.29871>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.93389>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3648255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.305504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.92791>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.377594>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.051865>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79541>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.256454>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.02455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.76799>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2565618>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.7161>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.42702>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.289083>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.47577>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.20806>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2677085>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.082344>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.82619>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2561595>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.712135>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.32247>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3896623>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.49837>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.20257>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2958024>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.24027>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.864365>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3759086>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65123>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.33107>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3201613>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.87476>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.47958>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3951802>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.537766>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.183395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3543708>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.73543>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.37494>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3604856>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.76199>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.40171>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.360286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.00615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.68305>, 'kl_loss': <tf.Tensor: shape=()
```



```
=(), dtype=float32, numpy=3.3230996>},
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.70949>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50332>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2061722>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.4518>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=75.206>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2457955>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.285835>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.952194>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.333641>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.88077>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.58856>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2922082>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.07972>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79164>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.288075>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79921>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.42593>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3732834>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.49438>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.04353>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4508412>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.87323>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.51866>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3545685>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.684586>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45102>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.233564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.543976>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.19094>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3530338>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.57356>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.189224>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.384341>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.9202>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.55528>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.364917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.50042>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.137886>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.362535>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.554115>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.11448>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4396358>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.50207>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.15896>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3431065>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.72549>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.51482>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2106717>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.72275>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.55657>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.166179>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97995>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.59966>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3802886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.137054>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.80231>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3347447>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.20063>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.831566>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3690674>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.10818>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.68895>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4192307>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.283714>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.8812>, 'kl_loss': <tf.Tensor: shape
```

```
=(), dtype=float32, numpy=3.402514>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79964>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.41645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.383187>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.71591>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.33861>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3773026>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.927185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.61543>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3117561>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.78932>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.562645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.22668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.57473>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.37195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2027817>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.01356>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.644196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3693638>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.29631>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.97023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3260834>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.32454>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.99511>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3294327>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.01702>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.70586>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.311168>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.08288>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.78492>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.297957>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.82059>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.57153>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2490516>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.881004>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.70027>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1807294>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.875114>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.57107>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3040442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.87436>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.528595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3457668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7326>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36324>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3693557>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.2508>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.859955>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3908477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.181145>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.864395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3167481>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.18587>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.9306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.255263>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.88404>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.62742>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2566235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.78505>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.43794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3471057>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.412994>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.00919>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4037986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.740166>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.33045>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3471057>}
```

```
e=(), dtype=float32, numpy=3.4097161>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.08033>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.740974>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.339357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.24405>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.96367>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2803798>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.64379>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.34636>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2974308>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.854164>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.538414>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3157475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.000984>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.73913>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2618592>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.82357>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.63916>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1844113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.90585>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.6876>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.218258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.18195>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.89468>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2872787>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.29006>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.89301>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.397049>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.37968>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.98738>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3922977>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.8067>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.40034>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.406362>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.81309>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.44284>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3702483>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.39402>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.99988>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.394144>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.717224>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.335266>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.381955>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.15869>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.8516>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3070939>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.54799>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.327126>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2208633>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.8483>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.467804>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3804927>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.262924>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.86472>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3982017>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.26369>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7969>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4667866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.91667>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.57602>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.340654>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.34506>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.105965>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2390957>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.52641>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.20823>, 'kl_loss': <tf.Tensor: shape
```

```
=(), dtype=float32, numpy=3.3181872>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.10043>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.65473>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.445701>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.148926>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.80842>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3405113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.99635>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.60003>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3963218>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.54178>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1969>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.344883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.658195>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.32264>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3355553>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.167366>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.87321>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2941597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.06838>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96728>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.101104>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.07188>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.808044>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2638297>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.986626>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.66708>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3195443>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.61859>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.3365>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2820892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.4478>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.07296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3748431>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.36386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.082664>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.281194>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.66981>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.37547>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2943351>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.499146>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.18769>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3114543>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36796>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0535>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3144639>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36344>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.07755>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2858872>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.52367>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.2862>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2374656>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.9662>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.69291>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2732964>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.57562>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.2276>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.348023>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.29546>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.91481>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.380654>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.70395>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.34417>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.359778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.91877>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.601234>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.251104>}
```

```
e=(), dtype=float32, numpy=3.3175368>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.32467>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.04629>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.278379>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.81869>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.3717>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4469898>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36363>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.91136>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4522672>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.035614>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.541016>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.494596>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.86892>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.35781>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.511109>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.9026>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.51287>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.389733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.16065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.81117>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3494816>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.63558>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.35792>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.277665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.36739>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.08766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2797332>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.49096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.189316>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.301642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.02736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.82315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2042098>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.730354>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.44341>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.286944>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.76632>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.43239>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3339317>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.451164>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.218834>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2323277>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.037636>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.80303>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2346032>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.847466>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.56831>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2791553>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.68753>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.374176>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3133514>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.69847>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.44716>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2513092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.87875>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.57246>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.306301>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.857315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2530816>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.35937>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.12834>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2310271>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.041>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.76681>, 'kl_loss': <tf.Tensor: shape=
```

```
((), dtype=float32, numpy=3.2741928>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.352715>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.13042>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.222299>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.53664>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.144745>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.391889>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.43723>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.060104>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3771312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.267815>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.96012>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3076959>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.72101>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.421776>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.29923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.12666>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.720764>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4059021>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.05165>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.607956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4436913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.08824>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.711296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3769474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.78328>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.40326>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3800225>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.246>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.80183>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4441726>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.77204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.401474>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.370565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.0906>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.731514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.359085>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.9224>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.654694>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2677066>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.55847>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.225914>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.332561>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.87102>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.476616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3943982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.0676>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.707275>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3603172>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.78577>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.561325>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2244377>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.26487>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.96212>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.30275>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.004265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72437>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2798889>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.982605>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.719025>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2635841>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.626175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.44411>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1820672>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.25809>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.858864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4441172>}
```

```
=(), dtype=float32, numpy=3.3992271>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.2343>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.8997>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3345993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.50137>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.09115>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4102223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.30847>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.96131>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3471642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.78024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.633064>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.147178>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36295>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.07581>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2871373>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.85524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.58485>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2703965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.16958>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.86462>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3049636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.23114>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.83865>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3924842>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.48781>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.23703>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.25078>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.81982>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.57951>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2403023>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.20633>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.83406>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3722706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.285995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.93135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3546414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.164375>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.796555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3678222>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.86696>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.41784>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4491158>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.31802>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.85811>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.459917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.01576>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.80052>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2152436>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.52924>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.49066>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0385804>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=85.38037>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.07335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3070252>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.287796>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.918686>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.369114>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.50261>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.21966>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2829537>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.904366>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.528625>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3757432>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.39316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.86269>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3992271>}
```

```
=(), dtype=float32, numpy=3.5304618>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.0594>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.45461>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.6047893>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59767>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.386696>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.210977>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.87178>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.5694>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3023796>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.24368>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.92701>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.316671>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.21731>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.95277>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.264543>}
Epoch 13/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.87792>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.651245>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2266777>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32711>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.04443>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2826781>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.25353>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.00351>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2500198>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50754>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.237686>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2698493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.35341>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.02452>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3288848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.684586>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.337616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3469734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.16469>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.82002>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3446655>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.32236>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.934814>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3875432>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.14239>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.995384>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1470032>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.43383>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2823339>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.46204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.08384>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3782043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.729805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.329765>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4000404>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.0718>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.665146>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4066567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.4977>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.17177>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3259335>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.340836>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.02238>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3184593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.90842>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.57258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3358383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.77665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.08384>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3782043>}
```



```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.49075>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.285893>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.37449>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.03777>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3367188>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.590454>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.23128>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3591735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.065445>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72258>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3428643>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.0718>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.73683>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3349698>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.94669>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.571236>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3754601>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.30036>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.9295>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3708637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.83723>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.58148>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2557435>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.42719>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.23285>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.194347>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.81541>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.65623>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1591752>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.680756>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.4069>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2738602>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.972>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72177>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2502327>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.51875>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.11379>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.404962>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.30431>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.03494>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2693737>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.46994>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.228165>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2417762>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.04271>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.760826>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2818813>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.8611>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=66.598114>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2629826>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.987305>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.72272>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2645867>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.49886>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.212685>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2861812>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.19903>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.84526>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3537686>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.508125>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.04794>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4601853>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.888794>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.44999>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4388046>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.42137>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.03256>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3888054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.61423>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.31568>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2985497>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.29575>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.95263>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3431268>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.69166>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.295944>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.395715>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.37994>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.988846>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3910873>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.42784>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.08747>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3403697>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.882866>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.52129>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.361573>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.435585>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.15107>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2845173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.71676>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.29416>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4225967>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.3405>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.91612>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.424375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.717354>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.36774>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3496146>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.85051>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.51374>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3367698>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.23804>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.862885>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3751552>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.46605>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.15714>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.308906>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.800575>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.620766>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1798108>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.35025>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1613>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1889482>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.233826>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.96404>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2697823>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.70432>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.46523>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2390914>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.414894>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.26671>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.148188>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.93127>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.8195>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1117609>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.26862>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.06406>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.20457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.575745>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.26841>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3073373>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.493835>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.216545>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2772934>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.76481>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.371124>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3936813>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.55514>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.163765>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3913727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.70589>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.44667>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2592187>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.76596>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.46084>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3051257>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.09691>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.79397>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3029428>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.98137>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.58635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3950157>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.99085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.56297>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.427878>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.69576>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.29962>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.396138>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.01473>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.67898>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3357544>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.163795>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.858635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3051636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.085075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.85894>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2261345>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.68225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.43904>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2432106>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.7538>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.38968>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3641171>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.36655>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.00048>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3660667>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.47753>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.11493>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.362601>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.740135>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.448135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2919974>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.38152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.121735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.259788>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.049614>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72011>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3295033>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30735>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.968994>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3383572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.73836>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.24435>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4940097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.088066>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72512>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3629436>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.00775>, 'reconstruction_loss':
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=67.67704>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3307083>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.069496>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81679>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2527077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.719376>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.40315>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3162217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.72599>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.35584>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3701453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.19922>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.83807>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3611412>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.93796>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.640755>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.297205>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.85593>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.61954>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2363915>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.95118>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.7133>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2378793>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.63766>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.383995>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2536635>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.33996>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.05794>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2820182>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.45389>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.1706>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2832901>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.79701>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.53251>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2645001>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.5936>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=64.29581>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2977867>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.76198>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.435524>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3264549>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.55216>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.21319>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3389754>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.41371>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.08659>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3271186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.33855>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.958084>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.380464>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.57293>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24198>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3309503>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.11759>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82643>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2911625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.822075>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.42838>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3936932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.7464>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.38939>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.357013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.80557>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.42571>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3798618>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.864685>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.51144>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3532462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.10263>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.71012>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.392511>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21562>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.930504>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2851188>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.06704>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.84479>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.222552>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68289>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.39105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2918408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.32731>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.93963>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3876781>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.707664>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.14476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5629013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.55332>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.11736>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4359558>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.37344>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.06879>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.304657>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.77711>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1697521>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.81185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.373695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4381542>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.55833>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.05637>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5019536>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.11149>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.82963>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2818592>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.09861>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.82541>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2732043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.14474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.873314>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2714267>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.050476>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.91137>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.139106>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30184>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.101265>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2005768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.87637>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.61382>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2625523>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.96347>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.63417>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.93128>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.6229>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3083832>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.84693>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.55723>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.289704>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.33094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.02244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3085017>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.633316>, 'reconstruction_loss':
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.31433>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3189888>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.07034>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.768036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3023064>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.50159>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.20431>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.297278>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.654724>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28865>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.366074>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.224915>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.852234>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.372683>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.37097>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.00924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3617363>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.79375>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.50114>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2926064>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.141884>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82211>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3197677>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.07935>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.728546>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3508058>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.44846>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.11805>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.330412>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.0175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.73187>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2856255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.217445>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.95477>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2626693>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.489845>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.24253>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2473118>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.61341>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.36803>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.245385>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.75291>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.41123>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3416734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.563995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.27303>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2909646>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.22851>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.90145>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.32706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.50992>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.285515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.224402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.27853>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.031586>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2469392>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.75682>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.46468>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2921333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.44687>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.15918>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.287688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.87007>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.558495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3115776>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.09059>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.82844>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.262154>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.644035>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.38393>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2601085>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.098976>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.733795>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3651795>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.404625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.050606>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3540192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.56163>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.23267>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3289552>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.22886>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.900734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3281276>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.33489>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.94075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3941398>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.313484>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.78469>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5287957>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.709435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1197>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5897362>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.903114>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.48624>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4168763>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.07479>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.75708>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3177075>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.84188>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.52983>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3120525>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.147125>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.75676>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3903668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.68564>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.35616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3294723>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.68138>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.37546>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3059268>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.69099>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40786>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2831256>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.74067>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.43395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3067155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.32589>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.98226>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3436255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.00664>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.67285>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3337898>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.54406>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.17669>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3673687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.982155>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.67979>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3023689>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89823>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.69434>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2038884>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.65915>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.25234>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.4068093>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.00195>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.63159>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3703644>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.29851>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.85104>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4474647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.98372>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.63778>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3459358>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.726204>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.44561>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2805939>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.14285>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79311>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.349736>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.76056>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32928>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4312787>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.47128>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.03388>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4374046>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.13059>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.7948>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.335791>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.698906>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.2816>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4173026>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.51601>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.124306>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3917007>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.44812>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.09655>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3515701>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.2134>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=68.78026>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4331412>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.589645>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.20585>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3837967>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.3386>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.101974>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2366276>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.316185>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.005936>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3102493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.50679>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.194725>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.312069>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.007774>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.708824>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2989495>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.029915>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.83541>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1945019>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.25061>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.961655>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2889595>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.88433>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.57797>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3063583>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.57783>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.28581>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2920175>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.9555>, 'reconstruction_lo
```



```
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.642624>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3128753>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.17767>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.99337>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.184301>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.28503>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.07478>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2102401>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.847374>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.613815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2335575>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.837814>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.57723>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2605834>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.58874>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.25522>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3335223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.007385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.668335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3390536>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.957016>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.66093>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2960868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.4986>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.126076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3725224>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.739845>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.54556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1942806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.043>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.7872>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2557979>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30939>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.96936>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3400269>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.76334>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.450035>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3133118>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.17869>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.981766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1969218>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.15858>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.920456>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2381215>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.194595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.018364>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1762278>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.17805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.901024>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2770226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.72797>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.41115>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3168163>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.28737>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.05119>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2361794>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.3747>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.10327>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2714324>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.92126>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.58602>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3352356>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.65648>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.3012>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.355278>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.75971>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.392426>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3672853>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89212>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.63399>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2581344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94783>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72016>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.22767>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.39955>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.20473>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1948261>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.53871>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.30504>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.23367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.814804>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.558212>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2565925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.12095>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.81215>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.308803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.120964>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.81948>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3014863>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.10384>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.797424>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.306418>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.90526>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.56602>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3392444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.57469>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.29779>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.276902>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.80918>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.441124>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.368056>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.45698>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.098076>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3588994>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.63766>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.437775>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1998858>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.637375>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.32243>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3149395>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.762794>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.381134>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3816571>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.44386>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.11124>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3326283>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.395874>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.12312>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2727535>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.53881>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.3315>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2073123>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04074>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.80008>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2406592>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.84813>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.57705>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2710776>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.69141>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.25408>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4373221>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94216>, 'reconstruction_l
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=68.5536>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3885643>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.34154>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.89486>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.446682>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.22074>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.94126>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2794785>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.03601>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.90871>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1273003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.67294>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40726>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2656846>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.63088>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40603>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.224853>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.140785>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.8539>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2868867>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.91096>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.61667>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2942853>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.48348>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.20279>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2806907>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.009834>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.73803>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2718048>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.31624>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.119774>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1964657>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.063354>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.799034>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.264317>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.370346>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.9397>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4306526>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.77629>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.450035>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3262558>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.056404>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.72631>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3300958>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.462585>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1554>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3071854>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.633766>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.37577>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2579963>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.1345>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=70.820526>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3139756>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.6052>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=68.3209>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2843018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.19309>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.95009>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2430053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.93712>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.691925>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2451973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.88573>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.521454>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3642735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.50651>, 'reconstruction_l
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=67.095024>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4114845>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.87184>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.559814>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3120239>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.13878>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.8436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2951844>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.6103>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.34695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2633495>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21798>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.025024>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1929574>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.68267>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.301178>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.97243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.677475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.29495>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.79469>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.58049>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.214199>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.68057>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.3937>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.286869>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.172295>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.88921>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2830784>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.557045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.25821>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2988334>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.405594>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.04919>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3564045>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.721886>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36638>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.35551>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.62773>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.319855>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.307878>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74907>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.476295>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2727768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.39779>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.12828>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.269507>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.317986>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.09373>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2242572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.29745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.05037>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2470772>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45573>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.12437>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3313591>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.91995>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.52372>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.396235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.90454>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.54789>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3566499>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.6481>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.28656>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3615437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.36129>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.0881>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.273193>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.05391>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.880264>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1736476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.97528>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.4918>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4834855>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.572174>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.123436>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4487343>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.13275>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.79036>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3423882>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.59235>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.22419>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3681533>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.3501>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=70.97016>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3799343>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.215935>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.86467>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3512661>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.313545>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.09529>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2182517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.00636>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.76164>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.244718>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.84752>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.538628>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3088944>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.62897>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.24619>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.382772>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.124084>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.76557>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.358511>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.65177>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.36453>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2872417>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.80069>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.44933>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.351355>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.719955>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.358116>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.361837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.48415>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.23932>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2448335>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.768196>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.53345>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.234747>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.463356>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.20504>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2583156>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.88344>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.645386>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2380493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.740845>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.51475>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2261004>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.30132>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94795>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3533683>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.14232>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89481>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.247509>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.693924>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.37865>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3152757>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.152374>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.89074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2616353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.71808>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.3973>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3207786>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.03502>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.74009>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2949302>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.26271>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.951706>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.311006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.43812>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.11433>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3237915>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.76444>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.484825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2796197>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.29363>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.11375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1798825>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.13689>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.93542>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2014706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.07205>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.78692>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2851315>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.46555>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.2044>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.261151>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.781235>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.50837>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.272864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.488365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.12686>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3615067>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.29231>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.86133>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4309883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.50428>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3276825>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.30662>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.10614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.200478>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.21305>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.88398>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3290696>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.0991>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.74848>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.350616>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.355644>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.02516>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.330482>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.11571>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.78532>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3303916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.10386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.6967>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4071612>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.318016>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.74848>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.350616>}
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.99661>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3214011>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.45687>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.263504>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1933694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.265785>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.11786>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1479259>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.80279>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.460175>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3426113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.87041>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.57681>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.293592>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.05661>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.72489>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3317215>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.86477>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.481186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3835838>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.93574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.572845>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3628945>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.44542>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.100975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3444417>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.37584>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.03068>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3451607>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.70957>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.44327>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2663026>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.50902>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.30439>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.204625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.147255>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.95679>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1904702>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69661>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.33605>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3605607>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.10021>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.7785>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3217118>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.035675>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.7155>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3201745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7507>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.46792>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2827866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.73505>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.47458>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.260465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.270775>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.04834>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2224374>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.61504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.450035>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.165007>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.36075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.07717>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.283577>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.55202>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.22624>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3257766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.48898>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.14628>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.3427086>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.794846>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.45647>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.338375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98717>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.713524>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.273645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.7658>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=74.531906>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.233892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.4509>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.2153>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.235598>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.37643>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.05367>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3227534>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.986>, 'reconstruction_lo
s': <tf.Tensor: shape=(), dtype=float32, numpy=69.60864>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.377356>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43733>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.057594>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3797402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.66769>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.37228>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2954133>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.898895>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.663994>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2349021>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.38102>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.134315>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2467017>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.468544>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.1913>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.277242>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.95704>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.723305>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2337337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.49058>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.32737>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1632075>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.67728>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.497955>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.17932>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.97806>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.723145>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2549164>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.01548>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.648476>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3670044>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.011185>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.64589>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3652954>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.533264>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.14809>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3851814>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.44433>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.08612>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3582044>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.97804>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.6028>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3752456>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.169>, 'reconstruction_lo
s': <tf.Tensor: shape=(), dtype=float32, numpy=68.80003>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.368964>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.10016>, 'reconstruction_l
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81419>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2859676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.268524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.06158>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.206944>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.36672>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.97632>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3904064>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.96759>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.558624>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4089649>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.894684>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.44249>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4521942>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.66793>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.353645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.314284>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.01143>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.785934>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.225492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.161415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.86583>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2955863>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.646385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.21204>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4343433>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.659966>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.329094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3308702>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.526596>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.138824>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3877754>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.07479>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.753586>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3212028>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.27759>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.97493>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.302662>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.74606>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.491585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2544823>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.44286>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0845866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.53714>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.29742>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2397265>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.67094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.389534>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2814026>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.237816>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.99549>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2423222>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.974724>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.6386>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3361175>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.079315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.83523>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2440848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.14063>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.89181>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2488246>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.23604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.95999>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2760499>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.95556>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.67803>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2775238>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84793>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.58006>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2678714>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25493>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.02244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.23249>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.59024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.314674>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.275566>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.07334>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.72947>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3438735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.99804>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.63928>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.358757>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.31168>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.96664>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.345047>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.65525>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.348274>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3069737>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.99739>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.70982>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.287571>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.543785>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0952>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4485824>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.96847>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.5248>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4436646>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.61004>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.12912>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.48092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43619>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.9461>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.490092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.5014>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.12984>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3715644>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.79181>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.456825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3349876>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.2712>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.99694>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.274264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.1121>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.844604>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2674956>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.19882>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.9251>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2737172>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.747635>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.58121>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1664238>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.50587>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.25168>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.25419>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.45078>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.15084>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2999413>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.94343>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.727196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2162316>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.61427>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.390114>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2241616>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.581215>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.32253>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2586823>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.375084>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.096756>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2783265>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36527>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.14267>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2226052>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.48235>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.20114>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.281215>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.8007>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.5781>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2225983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.997696>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.781815>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2158806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.733894>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.4741>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2597985>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.07972>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.87798>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2017376>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.139435>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.76469>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.374752>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.95433>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.61901>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3353233>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84424>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.581635>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2626011>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43839>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.17365>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2647412>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.793335>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.43141>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3619194>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.642204>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.25498>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.387223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.66293>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.339096>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3238378>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.47854>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.15788>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3206565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.88472>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50826>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3764586>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.60542>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.28998>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3154464>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.86519>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.545784>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3194058>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.62749>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.384148>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2433403>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.144135>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.8323>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3118336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.59824>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.232765>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3654773>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.73507>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.39488>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3401852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.387314>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.173615>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2137024>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.074394>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.78182>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2925696>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.484085>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.21628>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2678084>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.61284>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.359505>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2533329>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.36692>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.18675>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1801653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.79035>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40712>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.383229>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.96853>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.654236>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3142953>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.38409>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.0009>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.383185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84508>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.50471>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.340371>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38012>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.22772>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1523979>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.07873>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79042>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2883098>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.46812>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.19699>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.271129>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.92922>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.63648>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2927406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.7323>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=74.3527>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3795972>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.21418>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.978615>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2355645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65036>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.42623>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2241282>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.772606>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41494>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.357664>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.07508>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.73431>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3407738>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.83239>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.47786>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3545327>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.54472>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.12327>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4214542>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.17084>, 'reconstruction_l
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.7362>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4346383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.52749>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.32444>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2030475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.250305>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.20248>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.0478256>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.78525>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=81.49584>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.289405>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.95576>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.61184>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3439171>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.964874>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.70201>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2628665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.64551>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.311436>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3340683>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.17925>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.69259>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4866645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.74293>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.16857>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.5743575>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40612>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.21421>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1919105>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.63025>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.36215>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2680976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.10115>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.794205>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3069465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.03133>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.78068>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2506478>}
Epoch 14/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.46228>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.218956>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2433212>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.123436>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.83764>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2857978>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.9158>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=64.68099>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2348106>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.10297>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.85796>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2450035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.06535>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.76679>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2985604>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.3567>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.03943>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.317266>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.860245>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.54053>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3197198>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.77642>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.41546>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3609638>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.811775>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.680565>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1312077>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.080795>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82509>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2557094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.35175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.01644>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3353114>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.27231>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.92119>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3511207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74978>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.38854>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3612397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30077>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.99906>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3017097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0664>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.7623>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3041005>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.49613>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.16389>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3322473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.328>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.038055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2899508>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.26774>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.932686>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3350492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.215324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.86851>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3468177>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.709694>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.37329>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3364034>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.73586>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.399>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.33686>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.61808>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.246704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3713765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.02708>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66869>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3583858>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.58549>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.351585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2338986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.005104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.819336>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.185766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.52055>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.3556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1649528>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.285324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.0017>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2836215>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.59941>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.35983>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2395797>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.14736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.77968>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.367682>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.10251>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.85881>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2436974>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.281334>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.060555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.220779>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.80239>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.52299>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.279405>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.660774>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.394455>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2663207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.750305>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.484055>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2662473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.159645>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.87251>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2871337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.9699>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=65.61758>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3523228>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04208>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.578674>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4634068>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.57683>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.124275>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4525502>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.10807>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.70416>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4039092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.37384>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.05614>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3177056>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.794464>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.44038>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3540854>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.29713>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.90633>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.390803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.96484>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.60473>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3601143>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.989136>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.69076>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.298378>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.53414>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.21281>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3213344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.07236>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.843704>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.228656>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.44208>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.08541>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3566678>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1523>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.8213>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3310037>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.48108>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.212776>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2683022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.50352>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.24906>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2544568>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.98457>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.70239>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2821777>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.19374>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.978058>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2156837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.379524>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.256294>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1232295>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.1194>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.96715>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1522508>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.961>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.71563>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2453651>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.364655>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.13952>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.225135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.06608>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.939545>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.126531>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.62442>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.529854>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0945694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.98039>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.788956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1914384>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13546>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.82656>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.308899>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.08535>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.78735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2979941>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51349>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.09061>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.422886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.09454>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.69008>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4044623>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.31574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.078125>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2376182>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.32968>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.07356>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2561202>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.76122>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.50777>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.253453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.71384>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.35593>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3579097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.47647>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.098015>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3784568>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.45788>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.09578>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3620973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.57998>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.29319>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2867913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.93408>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.694046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.240034>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.85168>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69471>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1569705>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.39333>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.23112>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.162214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.36632>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.08721>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2791054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.07941>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.782295>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2971153>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.034386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.722565>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3118196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.38923>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1473>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2419255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.16719>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.961365>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2058272>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.776215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.50969>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2665284>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.17962>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.89076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.288858>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.45412>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.990875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4632416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.87309>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.508095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3650002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.80277>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.4756>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.327169>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.6612>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.412834>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2483642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.351494>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.0538>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2976894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.56431>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.20792>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.356395>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.082634>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.699104>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3835323>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.738914>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.40215>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3367608>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.492294>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.22993>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2623653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.54188>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.27766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2642188>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.30074>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.036415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.264328>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.83041>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.55372>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2766902>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.18388>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.89939>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2844949>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.47093>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.21207>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2588623>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.28009>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.998295>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2817922>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.31802>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.01178>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3062406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24502>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.94451>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3005052>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.826866>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.53722>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2896469>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.968864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.64623>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3226352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.310356>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.01255>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.297805>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69765>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.44306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2545822>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.31628>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.971924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3443532>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.313>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.02338>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2896247>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.57031>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.26056>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3097496>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.56477>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.27978>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.284996>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.96935>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.62379>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3455632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.036194>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.78235>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2538414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.88205>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.668076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.213977>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.08683>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.80314>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.283689>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.90763>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.54437>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.363261>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.22389>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.687744>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.536145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.11196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.685974>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.425988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.09328>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.77815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3151264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.19223>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.989456>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2027771>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.34697>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.85955>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4874177>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.97833>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.459915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5184212>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.60304>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.33409>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2689538>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.7035>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.44812>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2553773>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7912>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.51721>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.273986>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.61492>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.44889>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1660323>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.948494>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.741165>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2073274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.47435>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.21762>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2567291>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.52016>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.234116>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2860382>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.320625>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.05683>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2637908>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.56927>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.33317>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2361016>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.03799>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.771225>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2667649>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.2189>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=65.937584>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2813191>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.50553>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.25596>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2495694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.324005>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.1038>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2202096>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.30127>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.01168>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.289592>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.68366>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.37817>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3054955>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.03925>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.73476>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3044968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.438675>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.211945>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.226733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.76391>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.50199>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2619138>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.8036>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=74.52202>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2815804>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.90933>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.63092>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.278413>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.65266>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.407486>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.245168>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.7741>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=77.53247>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2416286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.024765>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.805>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.219766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.324814>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.11825>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2065632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.35844>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.06505>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.293386>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.43436>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.17668>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2576764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.92864>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=62.614296>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3143497>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.209206>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.98575>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2234566>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.900276>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.65613>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2441459>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.45919>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=79.15375>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3054404>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.09177>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79439>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2973778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36278>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.05158>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3111947>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.78534>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.53724>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2480965>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.17007>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.91328>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2567925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.53044>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.159164>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3712745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.098236>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.72898>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3692517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.226166>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.90711>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3190575>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.075615>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.78038>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.295234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.13464>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.78126>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.353387>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.107574>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.631516>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.4760582>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.36617>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.83513>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.531044>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.62344>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.24717>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3762717>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.68495>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.401344>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.283609>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.4955>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=65.227325>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2681763>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.85177>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.50714>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3446305>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.343414>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.05256>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2908592>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.575386>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.305176>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.270211>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.16382>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.901436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2623851>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.3014>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.00372>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2976737>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.79938>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.45695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.342427>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.75464>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.42244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3321984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.978874>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.6124>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3664765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.61149>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32058>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.290907>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.519844>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.32966>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.190189>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66461>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.27394>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3906732>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.9711>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.61515>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3559494>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.739845>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.29775>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.442094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.51113>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.163895>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3472366>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.480225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.19772>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2824981>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.79667>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.4472>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3494754>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.42805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.0062>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.421845>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.27599>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.844376>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4316165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.011955>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.68311>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3288448>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.266304>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.85006>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4162412>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.93246>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.546585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3858688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.15515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.81881>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3363442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.908226>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.501015>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.407208>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.218956>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.85651>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.362451>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.86821>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.64925>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2189674>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.83031>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.565216>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2650895>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.24271>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.98769>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2550094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86219>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.63194>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2302468>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79239>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.654>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1383922>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.84622>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.60649>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.239734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.6844>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=66.41618>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2682214>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.20826>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.9335>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.274757>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.60838>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.33747>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2709155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.041855>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.89119>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1506684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.174446>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.995636>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1788135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.51564>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.29439>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.221249>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.49764>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21748>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2801583>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.29749>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.948654>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3488402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.77546>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.42822>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3472347>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.81208>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.51581>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2962723>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.45847>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.09247>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3660057>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.45706>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.25215>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.204908>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.910286>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.62947>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2808158>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.396515>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.01283>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3836818>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.696236>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.35365>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3425832>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.17665>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.96544>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.211211>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.99247>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.74837>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.244102>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.98192>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.80298>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1789367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.97221>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.679855>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2923546>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.592575>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.24788>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.344693>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.156944>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.89169>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2652526>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.13125>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.82231>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3089356>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.54471>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=77.183525>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3611808>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.32964>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.965034>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3646061>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.479996>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.12392>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3560803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.61095>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.36714>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2438018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.5722>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.35014>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2220511>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.30397>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.0965>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.207477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.55938>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.30768>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2516983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.57792>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.31894>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.258983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.90603>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.61336>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.29267>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.79124>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.517525>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2737107>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.651405>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.36421>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.287194>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.4406>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.13855>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3020463>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.18364>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.92424>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2594001>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.47395>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.13752>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3364334>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.077896>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.75958>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3183105>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.180786>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.02336>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1574264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.265274>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.02943>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2358513>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.51595>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.22523>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.290728>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.21987>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.96805>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2518227>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.87661>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.67892>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1976953>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.302086>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.151054>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.151034>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.72732>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.54077>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1865447>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.77341>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.55574>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2176635>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30017>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.93213>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3680406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.6556>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=68.30395>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3516507>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.11516>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.70548>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4096794>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.89422>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.6393>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2549179>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.53693>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.42654>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1103902>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.34617>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.10447>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2416992>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.39423>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.18776>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2064738>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.77552>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.48337>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2921505>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.46902>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.16493>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3040872>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.15802>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.883224>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2747989>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.54099>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.28381>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.25718>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99042>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82134>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1690784>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.62793>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.39505>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2328823>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.01565>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.63561>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3800378>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.71879>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.42591>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2928805>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.949615>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.65449>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.295124>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.28656>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.01886>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2676988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36542>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.13018>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2352371>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.73236>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.44502>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2873397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.23906>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.96576>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.273304>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.03756>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.795616>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2419465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.633896>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.39138>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2425144>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.5284>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.15538>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3730145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.29226>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.87782>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.414434>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.52353>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19842>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3251095>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.67612>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.372086>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.30403>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.35741>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.09064>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2667663>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.83752>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.64453>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1929848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.946>, 'reconstruction_lo
s': <tf.Tensor: shape=(), dtype=float32, numpy=65.64652>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2994742>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.84662>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.54646>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3001595>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.56487>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.35664>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2082314>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.30888>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.040276>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2686105>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.974594>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.69983>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2747688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.276794>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.99861>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2781842>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.008965>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.686066>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3229015>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.52205>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.20715>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3148937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.355644>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.08342>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2722237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36034>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.10936>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2509732>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.95767>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.71269>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.244983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.81556>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.63053>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1850293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.904366>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.70705>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1973195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.074905>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.81229>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2626197>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.727455>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.42261>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3048491>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.78613>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.51649>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.269647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.24772>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.96087>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2868469>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.76151>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.55159>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2099242>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.860664>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.739235>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1214325>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32762>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.91082>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4168046>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.23817>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.8456>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3925698>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.95531>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.659996>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2953072>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.04697>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.716736>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3302307>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.96908>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.614525>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.354554>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.00274>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.665695>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3370414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.88439>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.6598>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.224593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59685>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.33674>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2601116>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.67932>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.35449>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.324831>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.23103>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.85455>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3764777>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68926>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.34214>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3471189>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.40811>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.10846>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2996528>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.48568>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.12293>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3627484>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.38924>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.0042>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3850296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.35855>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.07986>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2786942>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.382515>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.12584>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2566762>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.22434>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.962456>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2618847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.624504>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.39571>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2287889>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.46284>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.24237>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.22047>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.00041>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.65738>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3430333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.71874>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.46029>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2584553>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60624>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.27564>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3305945>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.96404>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.70063>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2634144>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.330795>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.02535>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3054428>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.73083>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.468925>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2619042>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.012314>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.74098>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2713332>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.97838>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.6841>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2942817>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.455414>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.19356>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2618568>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.85395>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.682945>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.171005>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.65276>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.46522>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1875443>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.5564>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.28959>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2668064>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99449>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.75228>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.242209>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.44044>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.210594>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2298417>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.22435>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89533>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.32902>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.91263>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.513405>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3992271>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.15609>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82667>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.32942>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05976>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84345>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2163055>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82172>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.4756>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.346112>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.777794>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.414536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3632557>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.77649>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3294597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.691536>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.349915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3416202>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.74445>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.32883>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.415626>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.99063>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.65817>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3324616>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.200294>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.984085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.216207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.03947>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.879616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1598508>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.55716>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.2157>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3414626>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40802>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.10943>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2985892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.85295>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.52151>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3314414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.51603>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.13493>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3810928>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.70286>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.33538>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3674743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04328>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.68184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.361444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.02285>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.6752>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3476498>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69994>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45326>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2466812>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.2966>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.12084>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1757605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.8533>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.69397>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.159336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.52691>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.192604>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3343034>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.90655>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.59194>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3146033>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.72642>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.392746>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3336701>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.494484>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.198555>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2959285>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.41718>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.14807>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2691147>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.01363>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.79224>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2213948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.34848>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.1815>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1669745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.28987>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.00434>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2855275>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.03191>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.70282>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.329094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.193985>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.86445>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.329539>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66051>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.31161>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3489022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.60404>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.32634>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2777047>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.5398>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=74.3225>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2172978>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.218185>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.99681>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.221376>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.98964>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.68925>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3003926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60448>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.26388>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.340599>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.03007>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.68998>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3400884>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.53122>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.27165>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2595696>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.52942>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.30919>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2202313>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.014626>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.773766>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.240862>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.12948>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.86221>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.267262>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.46659>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.26186>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.204729>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.17829>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04889>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1294038>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.37524>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.23163>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1436083>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.44218>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.21666>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.225514>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.62581>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.28882>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.336987>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.85591>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.51969>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3362198>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.100006>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.735085>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3649178>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.07176>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.7431>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3286624>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.55978>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.21072>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3490632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.80738>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.47066>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.336722>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.422>, 'reconstruction_los
s': <tf.Tensor: shape=(), dtype=float32, numpy=70.163506>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2584891>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.011284>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.828735>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.18255>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.126274>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.76582>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3604531>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.625145>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.240814>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3843284>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.64067>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.20612>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.43455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.229004>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.93702>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.291986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.83466>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.64659>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1880696>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.166245>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.91304>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2532077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.26998>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.8711>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3988793>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.17378>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85294>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3208375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28013>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.899284>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3808453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.934525>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.61702>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3175018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.898674>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60671>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.291959>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.50753>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.273>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2345257>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.243484>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.18271>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.0607781>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.47066>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.254524>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.216137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.25472>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.98602>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2687016>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82891>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.59964>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2292733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.773705>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.439545>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3341565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.65758>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.426>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2315743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.84677>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.62609>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2206826>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.81476>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.56661>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.248146>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.60428>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.35611>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2481694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.628105>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.38215>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.245959>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.95716>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.73969>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2174695>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.1047>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.84458>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2601166>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.74649>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.43018>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3163095>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.61158>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.304436>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3071475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.15939>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.87448>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2849135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.35852>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.113724>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2448006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.75608>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.52089>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.23519>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.12289>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.73292>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.38997>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.706085>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.32133>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3847542>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.48192>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.05854>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.4233747>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27548>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.84098>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.434503>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.20292>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.86847>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3344529>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.49222>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.17975>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3124661>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.023476>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.74491>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2785637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.84859>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.56911>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.279477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.82201>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.533295>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2887092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.23012>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.03839>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1917293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.127914>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.859184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2687306>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.11555>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.80335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3121963>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.712>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.4927>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2192988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.555405>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32842>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2269816>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.31569>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.0448>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.27089>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.96901>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.68424>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2847703>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.17>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.960144>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2098536>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.26187>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.00136>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2605171>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.4653>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.26374>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2015572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65773>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.45875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1989803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.458275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.23337>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2249045>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.782104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.60844>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1736717>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.75216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.42591>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3262506>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.62404>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.32996>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2940784>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.56621>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.35493>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.21128>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.25281>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.03631>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2164974>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.59621>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.277916>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3182883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40008>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.03502>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.365059>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.30907>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.00639>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.302674>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.03512>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72683>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.308291>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.415665>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04558>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3700862>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.32877>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.01659>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3121886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.29988>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.99511>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3047752>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.49891>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.269188>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.229723>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.8162>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=70.516075>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3001225>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.19346>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.83546>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3580048>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.50258>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1785>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3240852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.279495>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0796>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1998963>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.73749>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.46141>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2760777>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.205475>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.95674>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2487297>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.29097>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.04794>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2430274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.032074>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.854183>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1778917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.39997>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.03596>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.364013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.65335>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.35628>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2970753>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.947556>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.59317>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3543892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.58649>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.27847>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3080177>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.12581>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.99027>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1355343>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.77551>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.50969>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2658257>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.09688>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.849075>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.247802>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.72523>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.45771>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2675147>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.43964>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.08841>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3512244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.96689>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.75862>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2082684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.12959>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.918976>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2106178>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.29663>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.96296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3336716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.68328>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.367035>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3162487>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.50028>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17198>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3283036>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.410805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.02023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3905685>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.85441>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.44046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4139466>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.24069>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.055984>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.18471>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.92213>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.89512>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0270061>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=84.29481>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.014626>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2801812>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.3609>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.025566>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.335331>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.78239>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.52979>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2525914>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.329994>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.99845>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3315442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.87696>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.414795>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4621665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.33442>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.80851>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5259101>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.96625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.74773>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2185235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.21309>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.922325>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2907658>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.520035>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.303207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.67903>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43073>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2482975>}
Epoch 15/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13919>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.915306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.223888>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.956665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.677505>, 'kl_loss': <tf.Tensor: sha
```

```
pe=(), dtype=float32, numpy=3.279158>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.644615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.4145>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2301204>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.90456>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.641106>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.263453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.71105>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.40956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3014915>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.969604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.65236>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3172455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.473816>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.17768>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.296135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.5162>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.18151>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.334684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.59328>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.478905>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1143699>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.6556>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.420265>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.235334>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.96524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.67853>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2867115>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.01413>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.712105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3020217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.46024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.15841>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3018315>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.95034>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.713234>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.237104>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.8538>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.6077>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2461026>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.55972>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.298386>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2613404>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.04867>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.82746>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.221209>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99853>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.746864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.251665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.85066>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.57719>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2734756>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.49435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.22305>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.271293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.42928>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.14574>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.283545>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.518814>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19308>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.325734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.752975>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.41664>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3363369>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.40891>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.182915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.271293>}
```

```
=(), dtype=float32, numpy=3.2259955>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85893>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.68039>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1785393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.479904>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.333546>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.146358>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.90678>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.64274>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2640367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.18305>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.93654>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2465153>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.82033>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.435974>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.384357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.615654>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.340256>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2754009>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.915>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.68567>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2293313>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.59806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.32634>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2717178>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.27716>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.028206>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2489562>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.42443>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.16441>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2600162>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.97736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.70244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2749252>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.90578>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.57627>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.329507>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.89778>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.47796>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4198196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.175705>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.775055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4006476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.73866>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.39438>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3442872>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.153015>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89409>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2589233>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.41572>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.10227>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3134446>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.15153>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.784546>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3669784>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.692116>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.34978>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3423371>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.8279>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.55652>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2713838>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.24975>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.9427>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3070464>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89734>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.663445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2713838>}
```

```
e=(), dtype=float32, numpy=3.233893}>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40621>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.03709>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.369122>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.70544>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.353355>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3520827>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.21943>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.92817>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2912579>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.44797>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.18229>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2656808>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.677124>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.3629>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3142235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.90481>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.647655>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.257155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.94491>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1815975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.85157>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.65181>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.199759>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.73357>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.4561>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2774634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.209694>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.960495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2492003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.73651>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.5934>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1431098>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.39004>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.286995>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1030407>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.73818>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.55867>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1795135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.596954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.30379>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2931633>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.63746>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36152>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2759376>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.129906>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.730095>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3998084>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.888664>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.51151>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3771496>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.06153>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.8359>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2256348>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.10413>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.86851>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2356238>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.56966>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.34564>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2240143>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.61324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.312195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3010483>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.11157>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.76985>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3010483>}
```

```
=(), dtype=float32, numpy=3.3417192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.259254>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.907074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3521798>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.42209>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.125114>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.296975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.612206>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.37053>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2416732>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.5991>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.434555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1645453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.01525>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.84089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1743608>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.10998>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.81623>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2937477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.50353>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.18482>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3187127>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.70502>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.39036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3146558>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.88945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.63739>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2520576>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.843285>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.63321>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2100759>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.25317>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.99311>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.260056>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.78905>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.51724>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2718072>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.16763>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.73958>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4280534>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.56723>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.23789>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3293357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.49354>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.20801>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.285532>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.403175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19093>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2122445>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.1977>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.954155>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2435455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.207756>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.89646>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.311292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.75952>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.41538>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.344136>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.4268>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.14058>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2862267>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.25163>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.029785>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2218475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.191315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.97127>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2218475>}
```

```
e=(), dtype=float32, numpy=3.2200477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.30609>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.097275>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2088192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.42311>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.19638>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2267327>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.00284>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.77057>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2322726>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19619>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.97381>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.222383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.059586>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.781517>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2780716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.86266>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.54628>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.316382>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94436>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.628296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3160663>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.55787>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.27204>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.285829>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.52577>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.20278>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3229904>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.01354>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.721535>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.292006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.5678>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.313034>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2547715>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.012886>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.66543>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3474574>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.01872>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72964>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2890887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.272156>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.96483>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3073292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.06575>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.78537>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2803779>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.68115>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.3536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3275528>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.52333>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.290436>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2328935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.33312>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.15105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.182073>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.90351>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.6692>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2343147>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.795494>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.483574>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3119183>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.905304>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.44041>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4648948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.678665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.32555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2328935>}
```

```
=(), dtype=float32, numpy=3.353122>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.85349>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.59834>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2551506>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.06518>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.91035>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1548316>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.91023>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.49742>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4128137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.72559>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.261185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4644089>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.51194>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.26428>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2476592>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.336105>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.08156>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2545476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.46355>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.206314>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2572296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.33028>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.178474>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1518002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.68486>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.48343>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2014275>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.23769>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.974594>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.263102>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.29087>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.98509>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.305776>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.84261>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.55476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2878525>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.34038>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.08587>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2545097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.819786>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.541275>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.278508>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.08707>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.791725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2953439>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.28437>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.00983>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2745461>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.0381>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.78512>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2529864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.900185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.60163>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2985528>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.4383>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.12267>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3156276>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.77239>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.46534>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.307054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.224045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.987015>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2370307>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.37798>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.09022>, 'kl_loss': <tf.Tensor: shape=()
```



```
=(), dtype=float32, numpy=3.2877655>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.493805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.17317>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3206303>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.47167>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17158>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.300097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.39683>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.145134>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.251693>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.24355>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.99842>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2451293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.87401>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.65786>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2161515>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.99143>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.77354>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2178884>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.15536>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.848625>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.306734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.94714>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.678303>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2688432>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.81149>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.51182>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2996745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.94361>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.73205>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2115617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.491165>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.2629>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2282646>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.16746>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.876076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.291385>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65401>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.37591>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2780952>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.25651>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.962364>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2941444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.52064>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.28958>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.231053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.90489>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.672455>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2324364>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.269104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.938934>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3301702>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.58685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.26846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3183923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.98415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.71279>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2713642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.54044>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.27336>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2670834>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.83904>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.51823>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3208127>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66459>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.22199>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3208127>}
```

```
=(), dtype=float32, numpy=3.4425964>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.8707>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38771>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.482984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.15929>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82972>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3295693>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36678>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.11555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2512383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.221085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.964645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2564385>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.55196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.227745>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3242188>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.04625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.77639>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.269858>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.2425>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.99157>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2509322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.83725>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.59539>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2418625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.92348>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.631294>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2921803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.595894>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.2666>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3292942>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.23778>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.90682>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.330954>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.75029>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.39866>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.351628>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.42929>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.15821>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2710812>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.11127>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.94141>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1698632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.206184>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.859406>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3467803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.609276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.290794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3184788>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.32962>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.9002>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4294243>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.17497>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.85488>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.320095>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.04765>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81404>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2336159>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41597>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.12459>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2913826>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13357>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.77401>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3595595>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.84542>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.46837>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3595595>}
```

```
=(), dtype=float32, numpy=3.3770523>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.55097>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.24743>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3035438>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.00195>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.615944>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3860068>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.52963>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.16461>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.365024>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.038345>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.72322>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.315125>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.56835>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.174255>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3940988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.87884>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.51512>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3637176>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.635704>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41623>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2194774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.44303>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.16047>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2825608>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.87265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.59781>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2748406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.556694>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.31435>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.24235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.38579>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.240234>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1455548>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.60677>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.37237>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.234407>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.384895>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.11547>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.269423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.686295>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.41617>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2701263>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.231224>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.9718>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2594204>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.46145>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.33045>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1309934>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.59075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.445915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.144837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32618>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.149185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1769958>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.97763>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.746254>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.231378>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.092896>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79285>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.300048>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.700195>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.40563>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.294564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.30595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.05902>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.294564>}
```

```
=(), dtype=float32, numpy=3.2469227>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.003204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.68724>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3159611>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.189674>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.03152>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1581573>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41957>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.1752>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2443657>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.9806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.62422>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3563797>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.46455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.12092>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.343631>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.84482>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.62732>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2174995>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.53157>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.29365>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2379215>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.61192>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.43921>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1727161>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69797>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.431915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.266053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.292755>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.9598>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.332952>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.99765>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.7108>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2868524>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.724075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.3813>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3427749>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.17037>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.78543>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3849444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.26385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.90675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.357093>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.10642>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.76173>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3446946>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.48128>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.23959>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2416844>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.48916>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.2561>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2330527>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.964516>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.73972>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2247958>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.41055>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.1439>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2666523>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.44389>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.189575>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2543213>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.48805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.2062>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2818546>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.82123>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.570984>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2543213>}
```

```
e=(), dtype=float32, numpy=3.2502456>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.64493>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.37263>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.272302>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.094505>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.78962>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3048873>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.2451>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98035>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2647564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.24583>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.92665>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3191788>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.83944>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.54734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.292099>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.17889>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.03591>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1429734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.04718>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.824005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2231736>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.37631>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.09252>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2837944>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.84839>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.601425>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2469628>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.654564>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.46314>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1914234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.90512>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.759125>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1459937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28314>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.097885>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1852584>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.2503>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04318>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2071176>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.96574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.622665>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3430696>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.335526>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.01591>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3196182>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.713>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.36003>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.352963>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.612465>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.416435>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.196029>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.41275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.34266>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.070093>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.93648>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.73497>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2015069>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.00691>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.83842>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.168494>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.34953>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.107376>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2421536>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.157616>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.903366>, 'kl_loss': <tf.Tensor: sha
```

```
pe=(), dtype=float32, numpy=3.2542503>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.8604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.63856>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.221843>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.20908>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.998146>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.210939>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69005>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.5459>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1441507>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.2555>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.042755>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2127433>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.61736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.26057>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3567958>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.40532>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1381>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.267218>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.40864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.13102>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.277616>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.913864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.66873>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2451313>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.20285>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.00157>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2012768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.68424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.43318>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2510579>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.050835>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.80479>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2460475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.68254>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.45456>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.227982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.48866>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.246315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2423515>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25706>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.88928>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3677773>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.036934>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.64696>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.389979>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.397766>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.09003>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.307743>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.42452>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.12846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2960613>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.14806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.89055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2575138>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.47746>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.272064>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.205402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.50219>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.20462>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2975688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.8455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.548252>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2972436>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.16574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.95514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2972436>}
```

```
=(), dtype=float32, numpy=3.210605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.963036>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.702354>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2606816>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.573875>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.334435>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2394383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.93316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.68595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2472107>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.71053>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40022>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3103118>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.28946>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97711>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3123498>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.32668>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04341>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.283271>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32747>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.07811>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2493572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.90075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.66591>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2348437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.50551>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.31831>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1871927>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.73732>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.52956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2077644>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.92249>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.64414>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.278354>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.38837>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.06291>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.325451>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.53007>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.23499>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.295076>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.11009>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.805725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3043702>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.50086>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27544>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2254252>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.65911>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.53298>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1261299>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.30415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.88362>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.420529>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.00961>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.62052>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.38909>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.77488>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.487755>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.287125>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.081314>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.75181>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3295074>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79941>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.46068>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3387332>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.79352>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.48392>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2472107>}
```

```
(=(), dtype=float32, numpy=3.309599>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.555176>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.36045>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1947236>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.26031>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.03711>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.223198>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.27933>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.001595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.277736>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.14122>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.81827>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3229554>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.59228>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.29154>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.300734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.99342>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74108>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.252343>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.39259>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.07903>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3135617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.09614>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.76584>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.330299>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.07949>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.85848>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.221005>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.149536>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.93965>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2098866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.88697>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.66012>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2268517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.42891>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24099>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1879213>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.1724>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.9919>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1805031>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.72376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.422264>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3015015>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.446594>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.21804>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.22855>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32223>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.01008>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3121483>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.665115>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.39956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.265554>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.2365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.93358>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3029244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.46642>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.21258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.253846>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.805756>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.53999>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2657647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.758095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.46832>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.289774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.30104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.05518>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.289774>}
```



```
=(), dtype=float32, numpy=3.245861>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.54007>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.37316>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1669052>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.32024>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.142166>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.178072>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.339874>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.09557>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2443032>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.90469>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.69949>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2052026>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.12365>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.9217>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2019532>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.09395>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.806046>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2879066>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.987885>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.628235>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3596473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.88517>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.60021>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2849603>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.719696>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.55061>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.169083>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.619736>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.32961>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2901216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.47663>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.159874>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3167603>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.84015>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.548225>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.291924>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.4488>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.13995>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.308847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.47721>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.09332>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3838897>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.8264>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.53032>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2960792>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.03961>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.858536>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1810794>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59364>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.46612>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1275222>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.372894>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.07775>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2951462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.23719>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98706>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.250133>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.63167>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.33534>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.296327>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.0609>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.70596>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3549361>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.35424>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.03935>, 'kl_loss': <tf.Tensor: shape
```

```
=(), dtype=float32, numpy=3.3148894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84285>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.5282>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3146508>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.56406>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.261734>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3023229>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.370735>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.16505>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.20569>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.97766>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.842705>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1349552>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.61998>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.491554>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1284268>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17026>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.87634>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2939172>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.70662>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.43358>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2730422>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.374016>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.08506>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2889588>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.13404>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.878494>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2555485>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.25328>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.03017>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2231102>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.60318>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.41784>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1853423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.113846>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98897>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.124881>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.80059>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.56204>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2385478>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.6181>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=74.329636>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2884707>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.77606>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.47902>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2970417>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.29384>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98719>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3066483>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.3089>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=65.073204>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.235695>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.0673>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.896324>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1709764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.013916>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.839294>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.174625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.65166>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.39364>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2580192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.14011>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.83324>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3068671>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.7057>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.39516>, 'kl_loss': <tf.Tensor: shape=
```

```
((), dtype=float32, numpy=3.310545>)  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.09125>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.841675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.249569>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.33034>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.12664>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2037003>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.75641>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.52782>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2285905>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.940636>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66847>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2721603>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.04882>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.81622>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.232598>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.86721>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.68955>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1776586>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.16374>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.97689>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1868503>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.27608>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.015526>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.260553>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.324554>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.963524>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3610275>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.57754>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.22119>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3563454>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.71901>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32504>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3939629>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.72385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36461>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3592339>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.31463>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.922356>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3922753>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.527756>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.14808>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.379676>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.17504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.88263>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2924132>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.68014>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.47689>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.203247>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.78125>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.417816>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3634331>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.361435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.97663>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3848062>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.303665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.8665>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4371681>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.15321>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.84376>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3094535>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45744>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.25154>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2058988>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.712296>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.45672>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2058988>}
```

```
e=(), dtype=float32, numpy=3.2555764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.0228>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.66003>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.362774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.010445>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.74069>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2697525>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.157974>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.828094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.329876>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.78349>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.50244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2810547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.72809>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.45916>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2689304>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.26413>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.0378>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.226326>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.041275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.983215>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0580564>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.154755>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.94218>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2125783>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.89838>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.62726>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.271122>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.64366>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.41465>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2290084>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.6136>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.273544>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.340055>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.39873>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.15542>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.243309>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.62124>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.39133>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2299132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.39253>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13363>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.258906>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.29342>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.0385>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2549202>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.400894>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.17616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.224732>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.53918>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.34977>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1894088>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.97016>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.748764>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2213993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.46038>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.17918>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2812061>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.51912>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.24517>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2739456>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.98296>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.72742>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.255546>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.32657>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.116375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2213993>}
```

```
e=(), dtype=float32, numpy=3.210196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.401474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.19226>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2092102>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.851715>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.492>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3597207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.47508>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.11509>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.359995>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.351974>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.958626>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3933473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.08266>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.68336>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3993022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.13637>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84066>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2957046>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.31881>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.045006>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2738068>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.85241>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.60856>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.243854>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.57387>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.319275>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2545896>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.707375>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.443794>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2635818>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.23389>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.0615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1723852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.96961>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.727>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2426147>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.77793>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.48774>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.290191>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.54156>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.332565>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2089913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.35229>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.14699>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2052987>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.95714>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.717064>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2400737>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.82251>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.56248>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2600346>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.900604>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.69058>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2100244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.12153>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.853165>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2683647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38283>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.17199>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.210836>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.32125>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.10881>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2124379>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.00553>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.76123>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.210836>}
```

```
=(), dtype=float32, numpy=3.2442994>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.48477>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.29063>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1941433>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.525276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.18615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.339126>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.49246>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.18817>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.304287>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.25295>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.028076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2248757>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.88919>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.66499>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.224196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.39809>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.083984>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3141022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.110245>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.76617>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3440742>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.10361>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.824745>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.278862>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.83228>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.556206>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2760787>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.16902>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.84451>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3245075>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.203705>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.93577>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.267933>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.133514>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.87386>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.259648>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.15624>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.974747>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1814966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.6324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38025>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2521484>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.00569>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.68881>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.316883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.284546>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.99648>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2880604>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04649>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.875534>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1709604>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.42563>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.18047>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2451591>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.88157>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.6616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2199674>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.99089>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.7819>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2089946>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.82345>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.6738>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1496458>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.99444>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.66009>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2442994>}
```

```
=(), dtype=float32, numpy=3.3343492>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.28417>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.01131>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.272862>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.57454>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.25269>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3218474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.20465>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.931786>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2728639>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.85754>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.75379>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.103747>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.71527>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.489174>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2260947>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.815254>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.58981>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2254403>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.40728>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.155014>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2522655>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.09581>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.75517>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.340639>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.70289>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.502556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2003303>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.752174>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.55645>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1957216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.0965>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.77584>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3206582>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.336136>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.020966>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.315167>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.109314>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.78496>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3243546>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96946>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.57375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3957047>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.664375>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.25685>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4075236>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.18522>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.996765>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1884556>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.65192>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.625732>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0261807>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.876816>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.607666>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2691517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.19133>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.866005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3253257>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.44728>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19367>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.253611>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.08455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.758152>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3263993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.557335>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.1083>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3263993>}
```

```
=(), dtype=float32, numpy=3.4490364>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.316086>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.8078>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.5082817>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.52201>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.3302>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1918073>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.74871>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.48174>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2669709>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.4844>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.19602>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2883759>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.240685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.97552>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2651677>}
Epoch 16/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.759155>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.53186>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2272973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.33469>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.06655>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2681358>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.52986>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.32368>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2061806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.53846>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2114205>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.159615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.900856>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.258761>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.71863>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.44811>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.270513>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36383>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.09431>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2695217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.55345>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.22851>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3249462>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.007454>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.89165>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1158035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.50669>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.27846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2282321>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.68998>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.41414>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2758431>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.70132>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.421875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2794437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.978386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.67864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.299745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.75293>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.50498>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2479491>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.75235>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.48354>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2688026>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.188896>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.88914>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2997613>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84508>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.41414>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2758431>}
```



```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.60652>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.238552>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.74344>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.46061>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2828324>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.59039>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.30898>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2814136>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.37153>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.101074>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2704563>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99092>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.71491>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.27601>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.074104>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.74801>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3260949>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.42693>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.10274>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.324194>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84402>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.63555>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2084641>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.738365>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.58872>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1496406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.123726>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.013866>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1098614>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.653656>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.437294>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2163634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.964714>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.78018>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1845307>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.46448>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.15594>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3085418>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.39334>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17879>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2145534>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.76449>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.60181>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1626809>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.225914>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.01026>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2156518>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.95842>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.76528>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1931343>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.459595>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.260254>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1993396>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.767715>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.53613>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2315795>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.91434>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.62543>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2889066>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.67562>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.280045>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3955746>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.998314>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.61872>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3795898>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.61533>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.29663>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3187053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.89945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.65234>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.24711>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.17255>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.87375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2987983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.988434>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.62838>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.360054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41139>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.08505>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.326343>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69951>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.43851>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2610002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.10882>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.81846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.290361>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.80349>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.59153>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2119591>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.12679>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.776085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3507066>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.46965>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.120766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.348887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.950424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.66416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.286261>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.928085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.668785>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2593026>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.477745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.182106>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2956383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.74039>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.5277>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2126865>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.74088>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.61795>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1229358>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.52861>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.39682>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.131789>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.55854>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.33638>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2221577>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.87944>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.67277>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.20667>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.51464>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.416855>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0977895>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.90243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.8366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0658264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.42391>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1500828>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.560326>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.305435>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.254893>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.46871>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.46871>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.46871>}
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=71.239235>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2294745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.86192>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.479256>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3826683>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.65031>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.27475>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3755593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.90994>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.693924>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2160192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.82901>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.60785>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2211585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19047>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.97959>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.210877>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.301506>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.992455>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3090522>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.95282>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.60397>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3488433>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.9621>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=65.62021>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3418908>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.01545>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.72827>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2871776>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.537346>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.29594>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2414093>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.2855>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.12699>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1585064>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.54479>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.390465>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1543276>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.82348>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.564804>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2586722>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.371216>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.07321>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2980003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.31986>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.00998>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3098826>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69263>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.44999>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2426376>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.466064>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.26074>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2053204>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.96071>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.71328>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2474258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.295555>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.044495>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2510605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.91151>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.502884>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4086246>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.21422>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.89364>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3205771>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.10493>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.8158>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.289125>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.092094>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.878174>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.213918>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98556>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.741295>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2442596>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.07336>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.77638>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2969806>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.315796>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.97728>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3385186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.05411>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.75872>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2953854>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.05744>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.83375>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2236905>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.90967>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.68982>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2198474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.73194>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.51092>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2210248>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.231705>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.008415>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.223292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.82893>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.61156>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2173798>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97271>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.77139>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2013154>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.72026>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.474064>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2461972>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.49208>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.2037>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2883816>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.8025>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=68.52145>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2810485>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.44775>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.189125>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.258618>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.23004>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.9314>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.298642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.549065>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.27232>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2767441>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.06956>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82003>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2495277>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.76895>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43111>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3378475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.902054>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.614586>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2874703>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.91575>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.62692>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.288826>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.09672>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84228>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2544408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43483>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.119576>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3152523>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.34118>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.10263>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2385488>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.09543>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.89894>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1964881>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43363>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1737>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2599301>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.44627>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.12478>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3214982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.79902>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32966>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4693623>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.6857>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.34102>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3446815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.55139>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.313896>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2374992>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.77725>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.631584>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1456685>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.808716>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.40343>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4052868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.47923>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.02541>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4538193>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.98965>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.76213>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2275162>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.158005>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.94306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2149422>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.41065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19262>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2180352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.00386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.88619>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.117672>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36231>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.19718>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1651323>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.94048>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.71596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.224522>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.9001>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.63298>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2671196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.74316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.49389>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.249271>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.96659>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.74371>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2228742>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59552>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.34547>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2500503>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.82717>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.56268>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2644868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.920135>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.68802>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2321172>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.85281>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.65918>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1936371>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.709496>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45461>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2548852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.06266>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.79374>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.268924>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.506996>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.2373>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2696998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72818>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.51783>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2103524>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.00572>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.754486>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.251239>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.15399>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.8822>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2717907>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.22574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.980034>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2457008>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.221725>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.02312>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.198608>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.092865>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.888596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2042687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.51086>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.31799>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.192863>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.81384>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.61931>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1945379>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.07274>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.7886>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2841415>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.651596>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.410965>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2406318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.55818>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.29615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2620301>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.73065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.550224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.180428>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.242096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.041046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.201051>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.8524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.57249>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2799172>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.55968>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.2702>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2894752>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.04914>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.73759>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3115532>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.41391>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.166534>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2473779>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.70303>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.45536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.24767>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.948425>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.60041>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3480144>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.4057>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.06151>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.344195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.65341>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.36255>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2908661>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.43243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.15105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2813764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65973>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.319214>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3405175>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27713>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.80836>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4687767>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.46626>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.95757>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.508693>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.946434>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.599945>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.346492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.12132>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.86305>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2582664>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.94653>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.70671>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.239819>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.216415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.9225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.293918>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.91063>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.679054>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2315736>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.06987>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.87075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1991162>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.64975>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.4599>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1898465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72489>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.48766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.237227>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.37639>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.106445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2699428>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.20316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.9299>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.273264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.417694>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.1133>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3044002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.21209>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.98684>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2252471>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.03772>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.90041>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1373093>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.92702>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.60178>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3252304>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.472244>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.17184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3004043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.901665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51508>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3865814>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.94983>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.65047>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2993622>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.03985>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.80772>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2321327>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36449>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.059135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.305355>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.89586>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.516045>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3798127>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.57596>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.19233>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.383625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.628914>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.33227>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.296643>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.97372>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.60021>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.373504>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.34647>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.98461>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3618622>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.88191>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.566887>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3150268>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.704094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.318726>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.385369>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.54659>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.18526>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3613353>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.439415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1996>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2398155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.257866>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.95323>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3046355>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.57414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.280846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.293296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.22503>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.95435>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2706757>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.13751>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.97666>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1608531>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.30673>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.06396>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2427742>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.224236>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.96219>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2620437>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.48969>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.2185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.271192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.88346>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.472244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3252304>}
```



```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.631004>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2524533>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.2145>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=65.09072>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1237807>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.34139>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.19604>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.145352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.99101>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.81894>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1720767>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.67824>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.46649>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2117443>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.72032>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.43876>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2815597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.25694>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.98562>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2713208>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.198975>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.965996>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.232982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.757385>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.44265>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3147378>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.96169>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.81629>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1453993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.15184>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.93026>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.221582>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.67326>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.35201>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3212502>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.97645>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.678314>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.298137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.54372>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.35873>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1849885>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.3612>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.13742>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2237754>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.21668>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.039444>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1772385>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.44113>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.179726>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2614028>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.05872>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.7571>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.301619>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.61884>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.38322>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2356281>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.48033>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.19392>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2864177>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.83676>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.49156>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.345203>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.94714>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.5956>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3515477>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.71673>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.35785>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3588758>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.024635>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.78599>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2386482>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.08122>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.86786>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.213363>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.63072>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.42356>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.207161>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.984955>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.73969>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2452614>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.21149>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.95615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2553363>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.18798>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.90287>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.285111>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.44357>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.17754>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.26603>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.240166>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.95083>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2893348>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97072>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.65058>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.320134>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65513>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.37334>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2817917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.06145>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.70912>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3523293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.444984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.10969>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3352997>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.69174>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.511856>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1798828>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.58719>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.32731>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2598832>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.63147>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3121784>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.54043>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.28325>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2571785>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.25125>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.056564>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1946836>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.57146>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.43472>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1367347>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.04796>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.88319>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.164774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.81383>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.6311>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1827269>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.90424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.60427>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2999725>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.946884>, 'reconstruction_loss':
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.67331>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.273574>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.46291>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.150696>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3122177>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.36945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19826>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.171196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.1046>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.069046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0355492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66373>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.499825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1639056>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.67192>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.54723>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1246853>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.12201>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.91109>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2109234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.88473>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.65504>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2296937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.49098>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.28921>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2017708>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.904236>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.715355>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1888807>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.24578>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.11788>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1279023>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.71424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.5193>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1949375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40918>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.080635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3285415>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.17045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.91946>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2509952>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.11034>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.850334>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2600007>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.63303>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.39727>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2357662>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.655525>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.46507>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1904526>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.13542>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.906975>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2284493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.716064>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.50229>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2137794>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.6127>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.43023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1824698>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.27325>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.08848>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1847653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.869125>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.55119>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3179333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.80718>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.47413>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3330529>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.23249>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.970024>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.262465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.012634>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.75863>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2540061>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85344>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.634315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2191215>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17836>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.016075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1622822>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.31227>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.06941>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2428627>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.52432>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.275455>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2488708>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.73367>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.55214>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1815312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66439>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.42226>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2421327>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.27918>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.04267>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.236512>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.678566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.44679>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2317734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.45862>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.18864>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.269978>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94163>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.67699>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2646422>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.81572>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.57207>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.24365>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85758>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.62952>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2280655>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.43138>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.20752>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.223864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.33812>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.16669>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1714334>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.48442>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.31398>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1704373>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.75734>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.53238>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.224961>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.10158>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82724>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.274334>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17341>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.920395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.253016>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.818245>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.54232>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.275927>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.18645>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.962494>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2239552>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.23149>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.088974>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.142518>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.905945>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.47958>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4263597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.70925>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.318>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.3912492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.3844>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.10078>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2836235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.7096>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.39303>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.316574>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.34619>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.001755>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3444378>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.53558>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.20998>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3256106>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.34166>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.12666>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2149994>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98645>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.73654>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2499092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.729774>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.4207>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.309072>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.75984>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.38846>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3713822>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.16274>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.83084>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3319046>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.6741>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.407166>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.266936>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.82696>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.51669>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3102622>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.88448>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.56129>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3231988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.900276>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.68122>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2190537>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.815094>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.60205>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2130458>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.42543>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.19849>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2269406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.95082>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.76765>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.183173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.8886>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=65.72116>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.167441>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.24627>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.96764>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2786224>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.203026>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.999825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2032013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.966515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.68301>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2835116>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.32215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.07711>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2450414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.74745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.45536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2920928>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.182526>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.94781>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2347171>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.191475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.240044>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.38722>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.12781>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2594109>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.00705>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.798546>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.208503>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25134>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.11519>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1361578>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.97619>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.83335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1428351>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.880516>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.65999>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2205288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.53351>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.34473>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1887832>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.887924>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.705826>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1820948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69881>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.440254>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2585518>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27534>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.9518>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3235397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.61685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.37221>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2446473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40458>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.263405>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1411748>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.4234>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.15964>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2637603>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.308815>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.01192>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2968972>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.55255>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28761>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.264939>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.29097>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.00837>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.282599>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.88918>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.541504>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3476791>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.508446>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.01192>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2968972>}
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.24047>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2679782>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.59187>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.42157>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1703038>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.2647>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.13632>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1283822>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.90421>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.60156>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.302647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.95533>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.693184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2621436>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.36965>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.06767>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3019853>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.76285>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.39702>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3658333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.16913>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.84198>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.327146>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.544106>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.20496>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3391414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.299904>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.958374>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3415294>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94123>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.69457>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.246655>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.88669>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.7146>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1720855>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.307205>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.16494>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1422665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.137375>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.82348>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3138974>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.413765>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.10945>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.304313>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.30297>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.969406>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3335679>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.00274>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.70981>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2929275>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.16571>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.910774>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2549348>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43231>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.22254>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2097716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.98563>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.84168>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.143941>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.453735>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.198>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2557373>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.42895>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.11921>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3097367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.598366>, 'reconstruction_loss':
```

loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.280914>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3174522>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.01396>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.686516>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.327443>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.16656>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.918144>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2484124>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.782974>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.6058>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1771767>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.4668>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.29766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.169134>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.535866>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.29517>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2406933>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.91617>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.6419>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2742653>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.3486>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.06643>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.282177>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.93906>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72582>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2132332>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.00065>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.826805>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1738431>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.55533>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.376724>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1786048>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.58383>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.372>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2118309>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.90608>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.73866>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.16742>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.5399>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.41283>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1270726>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.815025>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.66882>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1462047>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.995964>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.767235>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2287323>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.03357>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.703384>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3301857>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.29242>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.96996>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3224595>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.35361>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.9943>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3593044>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.36943>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.04385>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3255737>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04949>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.691605>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.357885>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.38779>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.046486>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3413017>}

Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.803116>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.691605>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.357885>}


```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.55575>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2473679>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.30215>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.143524>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1586227>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.49172>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17516>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3165622>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.14259>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.801056>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.34154>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.97976>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.58081>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3989472>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.85097>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.5781>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2728639>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.15464>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.97955>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.17509>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.49359>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.26436>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2292366>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.79747>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.455315>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.342158>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.60572>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.332085>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2736344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.91178>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.57203>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3397515>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.30789>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.010506>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2973886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.32274>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04836>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2743778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.06062>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.83456>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2260642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.60574>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.551735>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.05401>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.89998>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.699196>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2007804>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.64895>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.393974>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2549767>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.442726>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.24294>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1997857>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.24343>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.9321>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.311335>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.134636>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.92135>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2132897>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.54891>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.356224>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1926873>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25958>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.0341>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.225476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.136246>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.91403>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.222176>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.26369>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.05094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2127469>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.464584>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.272804>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1917837>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.65819>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.418945>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2392387>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.17791>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.876854>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3010573>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17109>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.889984>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2811043>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.72402>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.459724>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2642999>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.00523>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.800934>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2042985>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.20556>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.007034>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1985266>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.399796>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.05283>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3469586>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.246925>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.88507>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3618531>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.01168>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.61225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3994262>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.72519>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32277>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4024186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.77574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.47755>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2981968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.91304>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.64642>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2666175>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.38411>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.15132>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2327874>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.26856>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.03679>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.231774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.36313>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.11716>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.245971>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.91822>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.77009>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1481302>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.75956>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.53885>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.220712>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.589584>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.3218>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2677822>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.33386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.14681>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1870468>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.04449>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.04449>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2111111>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.86187>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1826172>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.58087>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.36416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.216716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.61841>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.37737>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2410343>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.85109>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.64395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2071357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.823326>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.57036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2529671>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.00459>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.80887>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.195726>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.14005>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.940315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.199739>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.81875>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59337>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2253792>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.12865>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.947235>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1814094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.27305>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.94682>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3262265>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.21615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.913086>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3030632>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.963585>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.73687>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2267184>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.57579>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.35542>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.220365>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.09806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.811386>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2866745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.974945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.66317>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3117728>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.83347>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.57481>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.258667>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.600296>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32732>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.272977>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.7629>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43304>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3298671>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.99215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.736565>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2555828>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.98704>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.75648>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2305634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.00092>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.8569>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1440268>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.1785>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.963936>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2145653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69552>, 'reconstruction_loss':
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.41958>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2759368>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.06338>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.80943>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.253947>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.79793>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.64409>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1538386>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.190506>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.972824>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.21768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.54776>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.36581>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1819553>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.712585>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.539894>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.172688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.66583>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.53691>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1289248>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.89805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.59362>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3044312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.151>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89728>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2537239>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.358925>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.05087>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3080528>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.2143>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.94921>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2650902>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.75455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.633>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1215441>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.36961>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.123405>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2462075>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.606575>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36858>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2379944>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.16706>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.90389>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2631652>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.78398>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.44305>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.340936>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.46699>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.25732>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.209668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.54042>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.33557>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2048454>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.71491>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38061>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3343053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32408>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.013336>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.310746>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.863174>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.54787>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3153114>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.89971>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.531136>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3685753>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.54349>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.54787>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3153114>}
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.17757>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3659225>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.86321>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.70133>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1618822>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.46702>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.445583>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0214324>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.61597>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.36729>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.248684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13172>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.83843>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2932887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.129776>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.92338>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2063992>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.89724>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.638596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2586415>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.27219>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.88955>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3826337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.92743>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.47016>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4572701>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.188034>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.0314>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1566293>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.57735>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.35974>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2176025>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.518654>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.28539>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.233263>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.11839>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.90692>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2114677>}
Epoch 17/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.65161>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.45486>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.196751>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.12639>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.88812>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2382636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.49638>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.304634>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1917484>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.31701>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.109924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2070827>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79284>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.55292>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2399216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.51843>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.26139>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.257038>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.991234>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.75239>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2388484>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.90711>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.62389>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2832158>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.05635>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.95343>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1029184>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04617>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.826416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2197578>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.40831>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.14258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2657318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.49708>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.21827>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.27881>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.8752>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.59003>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2851677>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38752>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.15882>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2287002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.44865>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.206985>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2416587>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.039314>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.760414>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2789001>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.65924>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.43879>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2204514>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.39698>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.134514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2624671>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.27335>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.02737>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2459884>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.04095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.81767>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2232711>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.73519>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.5189>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2162902>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.8087>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.55076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2579436>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.112816>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.835>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2778149>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60948>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.43306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1764235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.5259>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.39653>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.129373>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.01496>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.91235>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1026115>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.41234>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.210915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2014225>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.83918>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.66642>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1727605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.12381>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.81924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3045745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.20545>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.975914>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2295384>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.33228>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.15524>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1770396>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.970566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72591>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2446594>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.80142>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.56988>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2315483>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.98682>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.736786>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2500312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.36252>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.09883>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2636898>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.41046>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.09524>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3152244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.457825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.05618>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4016404>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.396996>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.0194>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3775907>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.28863>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.97671>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3119183>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.795006>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.56528>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2297318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.93204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.66445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2675834>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.56191>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.233826>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3280864>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.02201>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.72353>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2984748>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.40241>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.18156>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2208543>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.86685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.62543>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2414212>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.67092>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.50494>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1659818>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.748505>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.45522>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.293285>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36693>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.088>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2789295>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.8343>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.59475>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2395482>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.57761>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.34672>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.230889>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.334435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.0582>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2762408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.49232>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.28999>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2023282>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.56984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.43498>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.134856>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21637>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.060585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1557858>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.240944>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98836>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.252585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59068>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.35957>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2311065>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.23685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.10212>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1347263>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.62431>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.53203>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0922818>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.23102>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.05532>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1757011>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.10544>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.82597>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.279464>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.123825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.863144>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2606807>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.40372>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.016495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3872254>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.27467>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.90355>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3711276>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.71821>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.49639>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.221817>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.77833>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.54834>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.229985>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.92539>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.70778>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2176108>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.07655>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.7846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2919536>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.63207>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.30779>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3242822>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79723>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.47671>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3205273>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.69513>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.43042>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2647107>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.24381>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.03771>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2061028>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.18519>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04887>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1363206>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.531746>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.39369>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.138052>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.73581>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.48881>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2469993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.02564>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.74476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2808833>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.24154>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.95172>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2898147>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.40295>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.18233>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2206223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.19188>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.005196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1866844>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.71016>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.47832>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2318428>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.06527>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.84452>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2207508>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.76546>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.404205>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3612487>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.23262>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.95166>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.280959>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.00924>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.759224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2500184>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.795265>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.60428>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1909862>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.736404>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.5242>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2122054>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.9414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.676445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2649517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.32934>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.033966>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.295369>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.08409>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.8289>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.255191>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.91666>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.71681>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.199841>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.85729>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.64174>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2155538>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.62581>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.41821>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2075953>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.01427>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.80233>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2119389>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.59103>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.38229>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2087312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72161>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.54015>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1814582>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.656235>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.42717>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2290626>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43285>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.17119>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2616673>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.47344>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.20079>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.272655>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.013916>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.77055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.24336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.9291>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.653595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.275507>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.47903>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.22193>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2570968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.07102>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.850525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.220496>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.60749>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30117>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3063195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.755165>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.489044>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.266124>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68086>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.40902>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2718441>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.82031>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.56967>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2506409>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28532>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.98277>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3025432>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.35089>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.1159>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2349968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.85194>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.64256>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2093766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.231125>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.946335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.284792>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.21085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.85457>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3562844>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41161>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.90986>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.501756>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36139>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.98315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3782394>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.00279>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2732086>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.554344>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.37434>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1800086>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.500626>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05355>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4470744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.0344>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.54866>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4857383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.678185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.42987>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2483132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.775764>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.5437>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2320664>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.929886>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.7065>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2233891>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.77441>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.654785>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1196237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.125015>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.96408>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1609347>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81241>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.59143>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2209766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51434>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.2633>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2510471>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.48873>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.27104>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2176907>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.98626>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.79336>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1929011>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.35806>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.121796>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2362685>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.5521>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=65.30092>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2511818>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.7829>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=66.54901>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2338898>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.452614>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.239716>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2128968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.48206>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.2146>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2674644>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97782>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.700676>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2771454>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=80.17653>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.90126>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2752717>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.552246>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.342064>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2101784>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.77347>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.51358>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2598877>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.02069>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.736496>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2841911>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.905914>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.62901>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.276902>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.81635>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.57155>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2448075>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.46019>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.22323>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2369645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.50419>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.29149>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2127023>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.46727>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.26024>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.207035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.861664>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.58899>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2726731>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.446205>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.21209>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2341151>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.33473>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.071968>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2627678>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.51947>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.32721>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1922638>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.913246>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.71093>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2023149>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.41914>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.1539>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2652447>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28488>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.0332>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2516778>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.80022>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.55303>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2471879>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.09288>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.91642>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.17646>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.4943>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.31432>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1799774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66617>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.385956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2802155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.15595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.88658>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2693686>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.3499>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.10788>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2420235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32353>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.09145>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2320774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.3864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.102646>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2837486>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.98114>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.58325>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3978844>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.2945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.85327>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4412332>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.64112>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.3297>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3114257>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82075>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.58461>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2361393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.81204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.56886>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2431808>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.11842>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.81679>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3016346>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.58382>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.33537>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2484398>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98685>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.77307>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2137733>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.04536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2077992>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.55219>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.28869>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.263504>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.11625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.826416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.28983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.87042>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.58185>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2885766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30193>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.99287>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3090694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.9225>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.68553>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2369685>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79632>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.64227>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.154045>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.760414>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.43338>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3270326>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.24221>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.93941>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.302803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.62933>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.22521>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4041188>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.6189>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.30793>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.310968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.55521>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.32671>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.228492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.53403>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2881331>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.62952>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.27952>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.349998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.2619>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.91599>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3459053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.30063>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.030075>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2705536>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.439835>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.09081>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3490205>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.14005>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.808044>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3320098>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.57654>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.29799>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2785525>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.17139>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.83251>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3388722>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.43029>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.124664>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.305629>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.10275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.92804>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1747112>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.856606>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.62734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2292633>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.30316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.078094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2250676>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.05936>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.85068>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2086768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.81391>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.69344>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1204658>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.96556>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.7655>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2000613>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0416>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.820595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2210057>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.360954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.13552>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.225432>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.47262>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.247406>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.225209>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.15004>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.02998>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1200595>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.120415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.972878>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1475406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.68732>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.49525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.192073>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.54993>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.31739>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2325382>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43569>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.122635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3130577>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.1095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.802097>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3073993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.91798>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.65805>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2599235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.506195>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.17064>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3355541>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.64952>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.48246>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1670609>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.7843>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.54409>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2402108>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.56912>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.23958>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3295453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.8954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.60563>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2897758>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.289444>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.130714>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1587324>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.13612>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.95047>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1856518>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.05108>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.92798>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1231003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.18078>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.98088>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1998954>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.79546>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.557655>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2378051>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.449745>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.261604>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1881416>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.06043>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.82221>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2382216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.66795>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.3847>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2832603>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.65708>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.38035>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2767365>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.4331>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.151825>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2812698>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.968925>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.78528>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.183649>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.74321>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.56712>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1760895>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.336334>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.15435>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.181983>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.84812>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.63695>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2111733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.02823>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=62.82132>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2069116>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.870056>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.62924>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.240811>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.11752>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.90098>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2165444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.093575>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.85076>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2428145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.77163>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.50683>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2647986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.48276>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.25433>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2284207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.740974>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.445915>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2950592>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.11367>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.8217>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2919707>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.50555>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.359695>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1458538>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.43854>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.2342>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2043412>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.717865>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.465195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.252669>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.23041>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.00564>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2247734>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.87755>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.70828>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1692634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.29408>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.161606>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.132474>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.822>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.669846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1521554>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.609474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43146>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1780202>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.62099>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.32717>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2938194>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.73735>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.46297>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2743835>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.231895>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.923706>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3081918>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.1996>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.02481>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1747916>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.80691>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.758446>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0484595>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.37305>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.18405>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1889927>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.57485>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.42308>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.151769>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.87366>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.648254>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2254055>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69774>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45726>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.240481>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.3538>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.14252>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2112808>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.59596>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.39703>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1989324>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.074234>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.92839>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1458447>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.47251>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.26157>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.210935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.218094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.872375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3457217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.868195>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59996>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2682312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.93459>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65451>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.28008>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.6281>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.38042>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2476814>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.60045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.396965>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2034798>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84662>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.605576>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2410426>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.426094>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.18395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2421448>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.356064>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.137024>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2190375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.05923>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.84545>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2137768>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.84137>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.5096>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3317745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.47258>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.13372>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.338863>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.15126>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.878845>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2724159>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.93276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.65859>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2741668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.60675>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.36735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2394028>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.91015>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.718895>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1912563>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.13629>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.870285>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2660034>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.35413>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.08691>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.267221>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.60916>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.41991>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.189258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.439186>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.1945>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.244685>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.93141>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.702385>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2290244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40304>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.18098>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.22206>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.07852>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.81472>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2637978>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.7145>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.46366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2508368>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.674805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.45815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2166557>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.77574>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.59478>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1809614>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.25095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.08536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.165598>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.05339>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.94519>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1081963>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.32854>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.20556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1229794>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.5164>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.32642>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1899831>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.86109>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.61918>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2419097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04501>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.81626>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2287507>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59417>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.34632>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.24785>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.77055>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.579704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1908493>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.93661>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.822716>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1138897>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.53793>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.14253>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.395401>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.48759>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.10807>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3795173>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.09323>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.80606>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2871666>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.48983>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.17523>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3145976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.22253>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.88784>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3346848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.21325>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.90836>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3048828>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.838>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2039666>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79842>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.56935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.22907>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.7862>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.520344>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.26586>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.3627>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.056885>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3058167>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.97707>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.70885>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.268229>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.32395>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.105034>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2189155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.69578>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.42662>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.269155>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51566>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.225006>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2906559>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.56449>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.38056>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1839325>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.70158>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.534546>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1670284>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.33209>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.14656>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.18553>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.8953>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.7378>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1575046>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.70121>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.55448>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.14673>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10614>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.82797>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.278171>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.850105>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.653595>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1965113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.717064>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.45962>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.257447>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.22408>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.00885>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2152305>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.69442>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.44222>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2521958>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.12651>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.91173>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2147853>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.25732>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.02846>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2288601>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.15664>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.904373>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2522655>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.88787>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.6877>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2001724>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.13928>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.00814>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1311455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.75443>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.622444>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.131987>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.71157>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.511566>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.200008>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.21974>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.04914>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.170597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.73486>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.5645>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1703646>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.67707>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.42737>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2497048>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.156906>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.83857>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3183372>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.29442>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.05226>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.242157>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27671>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.14447>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1322408>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.19355>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.94567>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.247879>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.04231>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.757164>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2851455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.26515>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.99403>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2711189>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.90548>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.61366>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2918181>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.505585>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.14415>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3614357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.286995>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.01376>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2732341>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.40243>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.23916>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.163269>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.06842>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.96402>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1043973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.6642>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=65.41086>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2533398>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.783226>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.57214>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2110813>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.31696>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.067432>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2495296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.518684>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.19774>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3209453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.73792>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.448006>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2899156>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.290245>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.00755>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2826934>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.239174>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.97083>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2683392>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.71926>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.54166>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1776023>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.312874>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.188156>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1247213>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.215904>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.111946>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1039608>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.71047>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.44181>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2686622>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.30003>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.060715>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.239317>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.00432>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.74234>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2619793>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74008>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.522675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2174034>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.84046>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.64528>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1951797>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.95951>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.79207>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1674433>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.771576>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.66632>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1052537>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.37525>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.15664>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2186112>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.15216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.89709>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.255077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.37253>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.11265>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2598827>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.87055>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.61235>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2581985>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.8818>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.68742>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1943774>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.64446>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.485756>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1587098>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25628>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.09839>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1578922>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.2525>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.0231>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2294006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.84947>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.58775>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2617195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.185555>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.93409>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2514617>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.654434>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.46418>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1902556>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.739586>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.581215>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1583679>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.16027>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.978035>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1822326>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.38997>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.16342>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2265441>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.703316>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.52405>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1792665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.38634>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.26746>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1188736>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.620926>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.50734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1135898>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.59965>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41309>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.186552>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.62428>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.34885>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2754402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94048>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.67616>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2643216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.158264>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85986>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2984002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.22545>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.96046>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2649956>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.90372>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.59933>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3043866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.083145>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.79144>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2917004>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60096>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.39764>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2033222>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.14314>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.02038>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.122766>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.18833>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.89435>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2939854>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.55726>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.238434>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3188267>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.7842>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=72.42285>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.361349>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.642265>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.40744>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2348251>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.01306>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.87074>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1423163>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.44335>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.23917>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2041879>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.62695>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.31611>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3108406>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.34679>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.10818>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.238606>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.69812>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.39055>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3075714>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.13868>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.885605>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2530727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.177444>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.92661>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2508304>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.947945>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.7483>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1996467>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.29949>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.25919>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.040299>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.57243>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.36243>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2100048>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.53576>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.2644>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2713604>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.384705>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.17094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2137713>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.89631>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.57664>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3196685>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.89306>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.67141>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2216496>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.16252>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.9509>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2116222>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.942276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.68827>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2540078>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.95021>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.70349>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2467155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.168396>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.95089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2175095>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.25593>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.07157>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1843593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.61644>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.38924>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2272015>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.23984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.95047>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2893715>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.95821>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.667076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2911346>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.62125>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.358246>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2630012>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.67258>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.456997>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2155805>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.085655>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.87826>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2073994>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.4343>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.07157>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3627315>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.05169>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.68754>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3641524>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.92305>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.515656>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4073975>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.51407>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.085785>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4282832>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.60659>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.282295>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3242958>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.961975>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.67258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2893944>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.185936>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.92497>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2609603>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.139725>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89148>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2482421>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.12357>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.88154>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2420382>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.62858>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.497856>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1307185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.50305>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.29737>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2056785>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.226845>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.96507>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2617722>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.13223>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.95034>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.181892>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.99319>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.815544>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1776457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.244194>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.01708>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2271137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.31943>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.09263>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2268016>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.50768>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.337074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1706092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.788055>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.57352>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2145379>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.76777>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.601814>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.165957>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.90811>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.7298>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1783125>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.64707>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43611>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2109618>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.15557>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.98771>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1678605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.6683>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.378395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2898998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.963554>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.70167>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2618835>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.76632>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.58108>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1852393>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43126>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.23965>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1916099>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81688>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.54661>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2702718>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.74072>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.445694>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2950253>}
```



```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.68506>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.457985>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2270741>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.32258>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.090065>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2325158>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.69313>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.40807>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2850556>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.931625>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.7016>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2300267>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.60624>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.39011>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2161365>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.92033>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.772114>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.14821>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.98846>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.77088>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.217575>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.46238>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.189575>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.272805>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.039185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.78517>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2540119>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.559395>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.395226>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1641712>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.982086>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.75696>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.225129>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.28803>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.08615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2018828>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.442024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1980202>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.57024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.423813>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1464257>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.47281>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.15705>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3157547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.97798>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72417>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2538185>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.20989>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.91159>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.298299>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.94054>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.67312>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2674186>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.56132>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.45263>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1086888>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.00893>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.78676>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.222171>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.404175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.18378>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2203956>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.114>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.87516>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2388413>}
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.56743>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.26524>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3021863>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.42815>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.2576>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1705463>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38907>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.20312>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.185954>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.465454>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1414>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3240476>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.03461>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.73877>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.295835>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68404>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.38478>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2992558>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.64325>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.30707>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.336182>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.405075>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.06142>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3436596>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.649025>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.4942>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1548204>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.25546>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.24487>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.0105948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=83.39869>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=80.15091>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2477803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.93948>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.64764>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.291851>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.951546>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.74343>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2081141>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.90416>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=62.642998>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2611592>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.01616>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.63786>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3782928>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7263>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=70.28329>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.4430168>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.228165>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.06789>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1602757>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.48356>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.25606>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2275023>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.16705>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.91858>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.248473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.01688>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.765076>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2517998>}
Epoch 18/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38431>, 'reconstruction_1
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.16198>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2223282>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.9354>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.669075>, 'kl_loss': <tf.Tensor: shape
```

```
=(), dtype=float32, numpy=3.2663276>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.17468>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.964016>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2106686>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.10197>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.873344>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.228621>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.724495>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45481>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2696824>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.266716>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.98274>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2839763>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.85477>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.59482>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.259945>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.94801>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.65757>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2904453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.749275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.64329>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.105986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.03759>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.839355>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.198234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.155136>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.92344>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2316945>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.4296>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.17348>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.256124>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.57076>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.314125>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2566388>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19557>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.99769>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.197881>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.36501>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.15078>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.214232>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.80334>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.55233>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2510045>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.407845>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.19615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2116961>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.23549>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.96973>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2657661>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.91354>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.63643>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2771156>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82744>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.57085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2565942>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.39417>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.143074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2511005>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.54438>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.254>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.290381>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.82306>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.522514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3005486>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.4027>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.20774>, 'kl_loss': <tf.Tensor: shape=
```

```
(), dtype=float32, numpy=3.194965>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.15553>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.010704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1448264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.729774>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.619675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1101012>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.05141>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.829155>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.222557>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.46367>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.28057>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1830947>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.90327>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.600174>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3030915>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.00958>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.78089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2286904>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04891>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.88129>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1676235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66937>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.44192>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2274578>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.58098>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.385735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1952446>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.87678>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.67425>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2025268>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.18133>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.950874>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.230452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.36889>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.08507>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2838225>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.23259>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.85736>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.375229>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.16127>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.80197>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.14779>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.8607>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.287088>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.636566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.43878>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1977875>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.70734>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.468414>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2389216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.324776>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.029724>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2950547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.04583>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.777016>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2688155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24584>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.03039>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2154565>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.518486>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.273>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2454848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.38069>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.2104>, 'kl_loss': <tf.Tensor: shape=
```

```
((), dtype=float32, numpy=3.170288>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.68756>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.406395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.281163>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.08211>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.81736>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2647445>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.526344>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.30124>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2251077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.50153>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.29952>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2020135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.02301>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.773865>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2491417>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.43271>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.26778>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.164928>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.452446>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.35408>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0983682>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96149>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1192405>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.09923>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.89315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2060764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.56646>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.36293>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.203526>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.81695>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.696304>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.120645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.372795>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.28835>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0844429>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.099686>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.94698>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1527035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.00419>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.758385>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.245803>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.78967>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.5688>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2208679>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.25319>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.89237>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3608155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.062775>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.70849>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.35429>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.28341>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.07667>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.206739>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43883>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.23959>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1992333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.68696>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.51424>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1727195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.97557>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.73555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2400212>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.3585>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.08288>, 'kl_loss': <tf.Tensor: shape=
```

```
(, dtype=float32, numpy=3.275621>)  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.54221>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.2555>, 'kl_loss': <tf.Tensor: shape=  
(, dtype=float32, numpy=3.286714>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.60924>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.350716>, 'kl_loss': <tf.Tensor: shap  
e=(), dtype=float32, numpy=3.258519>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.05825>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.85281>, 'kl_loss': <tf.Tensor: shape  
=(), dtype=float32, numpy=3.2054343>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.81853>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.67917>, 'kl_loss': <tf.Tensor: shape  
=(), dtype=float32, numpy=3.139358>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.2541>, 'reconstruction_lo  
ss': <tf.Tensor: shape=(), dtype=float32, numpy=66.11953>, 'kl_loss': <tf.Tensor: shape=  
(, dtype=float32, numpy=3.1345649>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.531235>, 'reconstruction_  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.29613>, 'kl_loss': <tf.Tensor: shap  
e=(), dtype=float32, numpy=3.2351036>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68331>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.40601>, 'kl_loss': <tf.Tensor: shape  
=(), dtype=float32, numpy=3.2773>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.093216>, 'reconstruction_  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.80417>, 'kl_loss': <tf.Tensor: shap  
e=(), dtype=float32, numpy=3.2890484>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.279945>, 'reconstruction_  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.05852>, 'kl_loss': <tf.Tensor: shap  
e=(), dtype=float32, numpy=3.2214265>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.03648>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.84808>, 'kl_loss': <tf.Tensor: shape  
=(), dtype=float32, numpy=3.188403>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.47581>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.23582>, 'kl_loss': <tf.Tensor: shape  
=(), dtype=float32, numpy=3.2399926>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89595>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.66112>, 'kl_loss': <tf.Tensor: shape  
=(), dtype=float32, numpy=3.2348313>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.566696>, 'reconstruction_  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.20651>, 'kl_loss': <tf.Tensor: shap  
e=(), dtype=float32, numpy=3.3601813>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.84236>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.56474>, 'kl_loss': <tf.Tensor: shape  
=(), dtype=float32, numpy=3.2776217>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82455>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.58212>, 'kl_loss': <tf.Tensor: shape  
=(), dtype=float32, numpy=3.242424>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.76842>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.57747>, 'kl_loss': <tf.Tensor: shape  
=(), dtype=float32, numpy=3.1909497>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.40758>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.186935>, 'kl_loss': <tf.Tensor: shap  
e=(), dtype=float32, numpy=3.2206397>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.567184>, 'reconstruction_  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.309242>, 'kl_loss': <tf.Tensor: sha  
pe=(), dtype=float32, numpy=3.2579384>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.913666>, 'reconstruction_  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.63933>, 'kl_loss': <tf.Tensor: shap  
e=(), dtype=float32, numpy=3.2743385>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.70635>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.48904>, 'kl_loss': <tf.Tensor: shape  
=(), dtype=float32, numpy=3.217317>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.72313>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.55887>, 'kl_loss': <tf.Tensor: shape  
=(), dtype=float32, numpy=3.1642604>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.58255>, 'reconstruction_1  
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.41174>, 'kl_loss': <tf.Tensor: shape
```

```
=(), dtype=float32, numpy=3.1708095>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.5519>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.394104>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1577976>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.902794>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.73751>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1652832>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.4297>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.263>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.166706>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.61737>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.460915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1564574>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.41596>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.20661>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2093492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.105835>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.85549>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2503428>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.24687>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.97949>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2673824>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.82381>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.58055>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2432563>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.60696>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.326294>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2806637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.03139>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.77419>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2571964>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.645325>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.399734>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2455883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.39384>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.05681>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3370278>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.53342>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.23638>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2970333>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.318954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.029884>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2890725>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.46003>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.219025>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2410023>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.90331>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.616516>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2867935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.99492>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.792366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2025504>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.62839>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.45958>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1688092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.81423>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2309196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.06053>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.7746>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2859375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.053085>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.63105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4220338>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.284904>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.98233>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2859375>}
```

```
e=(), dtype=float32, numpy=3.3025727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.14617>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.93447>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2117012>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.09384>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.9485>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1453362>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.085556>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.67863>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4069264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.923386>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.48412>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4392593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.44397>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.22154>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2224288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.69435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.48687>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2074807>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.79573>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.58703>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.208702>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.60018>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.47202>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1281614>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.869835>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.69056>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1792724>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.59823>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.35288>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2453485>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.51375>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.238144>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2756019>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.051704>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.79906>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.252645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.67275>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.46559>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2071636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.26228>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.02513>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2371533>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.50089>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.24231>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2585845>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.70807>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.47005>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2380195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.30141>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.08764>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2137642>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.33184>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.061066>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2707744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.62712>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.36398>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.263141>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.94377>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.682816>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2609527>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.385765>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.19017>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.195598>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.4739>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.24084>, 'kl_loss': <tf.Tensor: shape=
```



```
((), dtype=float32, numpy=3.2330642>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.63537>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.37133>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2640414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68328>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.44577>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2375083>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.68547>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.49277>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1927013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.12134>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.93522>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1861227>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.26093>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.108795>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1521385>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.3286>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.178486>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1501095>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.6613>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.42999>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2313094>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.30224>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.10448>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1977544>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.966125>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=61.744656>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2214673>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.438286>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.28546>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.152827>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.68206>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.50998>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.172081>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.28078>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.03128>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.249494>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.10901>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.86043>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2485802>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.551796>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.28223>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.269567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.922775>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.70779>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.214991>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.35105>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.134155>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.216893>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.5775>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.27208>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3054175>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.862175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.58407>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2781093>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19969>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.95837>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2413228>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.076416>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.83983>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.236585>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.31829>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.01912>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2991738>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.76494>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.34898>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2991738>}
```

```
(=(), dtype=float32, numpy=3.4159577>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.98123>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.52594>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.455291>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.52045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.20704>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3134065>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.6241>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.391464>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2326362>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.515526>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.2973>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2182221>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.55326>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.268893>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.4255>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.21908>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2064216>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.83758>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.656876>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.180703>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.09338>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.91536>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1780245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.22758>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.998184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.229391>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.05857>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.79875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2598166>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.6709>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.404564>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2663372>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.89923>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.60513>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2940948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.60509>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.39589>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2091956>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.56655>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.44176>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1247945>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.42999>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.13636>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.293634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.16575>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.909966>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2557797>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.14186>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.75433>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3875244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.54018>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.24412>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2960625>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.38799>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.176254>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2117412>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.73493>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.4602>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.274732>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.46667>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.12529>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3413749>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.138916>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.78249>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.274732>}
```

```
e=(), dtype=float32, numpy=3.3564217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.993935>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.7121>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2818348>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.334564>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98139>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3531697>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.825806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.48552>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.340287>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.36571>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.081818>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2838902>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86397>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.5217>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.342273>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.18196>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.86513>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.316835>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.88524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.713196>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1720438>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.892136>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.674675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2174606>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.18129>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.97166>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.209629>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.73093>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.55216>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1787653>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.64031>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.558846>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.081469>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.88942>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.7257>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1637166>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.91245>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.7044>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2080505>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.92855>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.704094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2244594>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.302155>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.08347>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2186775>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.69618>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.580315>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1158688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.87738>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.739666>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.137714>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.39006>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.21807>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.17199>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.171524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.95944>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2120843>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.32861>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.04258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2860312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.8165>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.54719>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2693038>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.74826>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.53366>, 'kl_loss': <tf.Tensor: shape=()
```

```
=(), dtype=float32, numpy=3.214597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.403076>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.11622>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2868571>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.44559>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.327034>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1185563>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.670906>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.48255>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1883514>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.3815>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.09707>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2844338>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.66836>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.39165>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2767074>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.95824>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1602626>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.93391>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.75078>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1831317>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.68993>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.57028>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1196532>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.980576>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.797165>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1834111>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.8105>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.59901>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2114913>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.13993>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.94986>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1900716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.9831>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.71621>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2668889>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.75629>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.44308>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3132126>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.22632>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3010445>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.23618>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.95591>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2802722>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.8665>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.69296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1735413>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.7419>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.574165>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1677337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.0916>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.90307>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1885314>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.01996>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.79514>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2248168>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.068726>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.831627>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2370956>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.907524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.64822>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2593055>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.09694>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.85358>, 'kl_loss': <tf.Tensor: shape=()
```

```
=(), dtype=float32, numpy=3.2433636>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.8349>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.55788>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2770233>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.58307>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.2829>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3001695>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.35805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.08636>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2716904>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.58974>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.2569>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3328366>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.04338>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.72464>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3187397>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.40356>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.22338>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1801727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.22825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.990906>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2373402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.517044>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.23836>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.278688>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.2534>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.01072>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2426822>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.89276>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.72225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1705098>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.16884>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.03602>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1328235>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.56405>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.41861>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.145439>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.42906>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.2693>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1597586>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45671>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.18689>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2698193>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.622444>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.361755>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.26069>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.97113>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.6669>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.304226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94325>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.771996>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1712577>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.60858>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.56573>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.042858>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.05599>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.894135>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1618598>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.42941>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.31308>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1163332>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.6638>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.47211>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1916935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.4391>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.21912>, 'kl_loss': <tf.Tensor: shape=
```

```
((), dtype=float32, numpy=3.219986>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.045555>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.859634>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1859226>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.44352>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.27368>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1698372>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.9113>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.79007>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1212277>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.59705>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.41685>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1802027>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.923256>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.62665>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2966084>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50089>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.26378>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2371154>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.696144>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.433304>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2628436>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.34491>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.102585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2423234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.28266>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.07566>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.207>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.75251>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.511856>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2406545>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.39394>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.14894>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.245002>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30455>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.094406>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2101421>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.7749>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.5712>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2037024>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.6048>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.268616>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.336182>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.23129>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.89354>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3377547>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.72052>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.43607>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2844481>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.59913>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.313126>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2859998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.35818>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.12169>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2364883>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.62911>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.4518>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1773126>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.841576>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.61259>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2289882>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.27226>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.042126>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2301338>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.42362>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.26046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2301338>}
```

```
=(), dtype=float32, numpy=3.1631587>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.3203>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.09832>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2219796>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.555534>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.33379>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2217433>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.31177>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.09705>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2147133>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.81201>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.55791>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2541027>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.412315>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.17219>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2401283>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.4134>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.18797>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2254288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.4258>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.22157>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2042203>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.08548>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.891716>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.193765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.79887>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.65024>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1486247>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.04149>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.88985>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1516423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.21881>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.01548>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2033322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.62768>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.38524>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2424407>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.81235>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.59181>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2205315>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.32066>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.065926>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2547402>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.36229>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.166595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1956973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.72018>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.61102>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1091568>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.27627>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.913124>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3631434>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.18053>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.8415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3390281>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.94629>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.70815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2381387>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.270454>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.011116>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.259336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.04544>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.76599>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2794526>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.01202>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.76224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2147133>}
```

```
=(), dtype=float32, numpy=3.2497795>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.889984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.732925>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.157062>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.46931>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.286194>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.183112>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.55187>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.337086>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2147872>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.25424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.995766>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2584748>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.81691>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.581696>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2352135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.10898>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.902596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2063813>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.30495>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.0581>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.246846>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.2852>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.02111>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2640939>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.355385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.19287>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1625137>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.52079>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.36509>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1556997>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.88533>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.716446>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1688838>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.828575>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.69022>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1383524>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.48246>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.35712>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.125342>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.97639>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.72967>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2467217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.81337>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.64004>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1733305>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.446655>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.20306>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2435977>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.110504>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.89743>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.213077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.641945>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.38471>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.257234>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.94801>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.723526>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2244887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.93791>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.69871>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2392018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.04024>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.77396>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.266278>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.784256>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.55635>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2444887>}
```



```
e=(), dtype=float32, numpy=3.2279053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.88474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.71825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1664977>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.57452>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.39354>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1809783>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.54719>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.30307>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2441196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.08702>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.8666>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2204208>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.521095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.3223>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1987948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.23468>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.964>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2706819>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85161>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.52509>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3265183>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.31272>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.06721>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2455115>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.006805>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.86488>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.14192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0511>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.78843>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2626739>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.79722>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.50696>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2902577>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.035934>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.77242>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2635112>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.76387>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50083>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.263036>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.51913>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.21002>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3091018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.164185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.94352>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2206657>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.24185>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.1071>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1347535>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.65099>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.55222>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0987716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.55019>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.29406>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2561326>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.60563>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.38224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2233856>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.995895>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.736397>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2594993>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.21988>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.89562>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3242536>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.50802>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.226204>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2279053>}
```

```
=(), dtype=float32, numpy=3.2818112>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.08929>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.81928>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.270036>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.72135>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.47127>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2500863>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.66022>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.50061>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1596103>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.40999>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30974>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.100249>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.12168>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.040695>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0809882>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.675385>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.4262>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2491813>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.17014>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.94298>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2271667>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.767235>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.51159>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2556427>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.58954>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.37658>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2129555>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.64282>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.45356>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1892648>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.85283>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.691925>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1609032>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.59508>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.47839>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1166835>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.060486>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.83111>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2293785>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.92441>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.65546>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2689552>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.072136>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.80338>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2687526>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.58895>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.316345>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.272607>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.60535>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.388664>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2166855>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.29061>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.10494>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1856687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.80089>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.624855>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1760337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.03382>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.79138>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2424407>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.50469>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.2395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2651894>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.98943>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.73546>, 'kl_loss': <tf.Tensor: shape=()
```

```
=(), dtype=float32, numpy=3.2539735>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.35327>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.15133>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.201941>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.30026>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.13164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.168628>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.83713>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.6578>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.179326>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.257935>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04022>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2177136>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.33062>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.16407>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1665509>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.97055>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.86002>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1105237>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.37149>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.27299>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0984998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.35382>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.18589>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.167931>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.40261>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13629>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2663162>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.77261>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.50703>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2655854>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.96388>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.66834>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2955399>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96382>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.71506>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2487621>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.572586>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.29266>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2799218>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.83642>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.551735>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.28468>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.30036>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.09489>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2054756>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.93886>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.81689>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.12197>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.16597>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.879036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2869332>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.44761>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.142395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3052132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.61068>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24889>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3617826>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.46541>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.228836>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.236571>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.73274>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.591286>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1414533>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1752>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.97424>, 'kl_loss': <tf.Tensor: shape=
```

```
((), dtype=float32, numpy=3.2009614>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.54968>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.2367>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.312982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.154205>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.90987>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2443352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.351776>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.04312>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3086553>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.96501>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.71188>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2531319>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.03274>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.795265>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2374694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.57936>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.396225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.183134>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.24397>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.222855>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0211196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.49147>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.33224>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.159231>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.36569>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.159164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2065246>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.995224>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.83579>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1594288>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.77195>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.49927>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2726817>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.6258>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.447556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1782422>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.11568>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.95217>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.163505>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.577156>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.36935>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2078125>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86153>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.65567>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.205855>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.74717>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.575615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1715531>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.129105>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97046>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1586475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.27124>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.058556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.212684>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.72408>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.453415>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2706685>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.64249>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.37083>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2716606>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.44492>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.19399>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2509296>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.64903>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.4572>, 'kl_loss': <tf.Tensor: shape=
```

```
((), dtype=float32, numpy=3.191836>)  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.880714>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.699036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1816761>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.08794>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.75896>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3289769>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.76017>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.43089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3292801>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.68456>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.3069>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3776612>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.31404>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.91983>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.394207>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.3388>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.04956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.289241>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.69435>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.44242>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2519317>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.05062>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.822495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2281241>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84033>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.610344>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2299843>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.88164>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.63445>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.247186>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.360176>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.217926>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1422486>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.18397>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.97341>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2105567>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.10738>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.85792>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2494671>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72026>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.548035>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1722226>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.52337>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.35483>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1685388>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.28238>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.08069>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.201694>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.07743>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86594>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2114944>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.23442>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.076675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1577466>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.454025>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.25612>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1979034>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.553314>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.417534>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.135783>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.641884>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.50004>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1418488>}  
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.22723>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.06027>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.247186>}
```

```
=(), dtype=float32, numpy=3.166954>
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81508>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.689026>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.126056>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.7439>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.4936>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2502952>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.709595>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.4801>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2294936>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.49772>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.34875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1489697>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1558>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.01397>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1418335>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.819984>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.611984>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.207997>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.53259>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.28361>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.248988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.59031>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.39298>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1973262>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13145>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.91665>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2147973>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.42603>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.146614>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.279419>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.85216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.62656>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.225603>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.55806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.346825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2112358>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.58216>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.43255>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1496155>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.83492>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.62023>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2146878>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.38028>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.10572>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2745628>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.95045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.69159>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2588596>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41266>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.23982>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1728356>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.82546>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.59787>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.227594>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.028534>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.8247>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2038352>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.20139>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.01059>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1908004>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.327286>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.182533>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.144751>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.34847>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.045586>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.214751>}
```

```
e=(), dtype=float32, numpy=3.302887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59404>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.33725>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2567935>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.05095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.77062>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.280328>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.70657>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.47096>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2356133>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.19927>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.11351>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0857587>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.93862>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.75328>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1853433>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.96807>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.783615>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1844523>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.91376>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.71259>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2011619>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.2976>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.03062>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.26698>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.06596>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.92164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.144322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.249825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.1022>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1476223>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.22756>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.94856>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2789981>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.692764>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.431915>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2608478>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.51365>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.23494>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2787087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.45154>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.11759>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3339431>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.21924>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.875534>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3437042>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.32527>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.17968>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.145595>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.10781>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.093525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0142865>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.91879>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.66756>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2512329>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.53728>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.24768>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2895927>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.75256>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.54241>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2101548>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.494415>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.237854>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2565637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.77164>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.40743>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2565637>}
```

```
=(), dtype=float32, numpy=3.3642006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.57857>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.168495>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.4100716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.70977>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.52647>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1833003>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.273384>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.04247>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2309108>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.06102>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.81792>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2431023>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.80211>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.57148>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2306268>}
Epoch 19/20 - Training complete
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.15335>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.95071>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2026424>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45458>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.19949>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2550912>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.996155>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.79132>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2048328>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.8931>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.67526>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.217836>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.396515>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.15554>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2409718>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.047585>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.80129>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.246292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.55754>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.32722>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.23032>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.743576>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.476105>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2674727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.57588>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.4756>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1002839>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.83322>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.642395>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1908238>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.158195>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.9309>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2272937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.99051>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.745705>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.244802>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.42254>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.176125>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.246415>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.13228>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.94133>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.190949>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.33916>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.12839>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2107685>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.71774>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.474945>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2427971>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.181335>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.94133>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.190949>}
```



```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.98353>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1978087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.07527>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84178>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.233487>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.10182>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.86835>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.233478>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.797676>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.57529>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2223923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.432816>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.201164>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2316527>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.34155>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.066605>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2749515>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.65787>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.356926>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3009384>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24771>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.04434>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2033668>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.06217>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.9182>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1439753>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.67837>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=62.56702>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.111344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.976>, 'reconstruction_lo
s': <tf.Tensor: shape=(), dtype=float32, numpy=65.75965>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2163453>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.331345>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.14791>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1834302>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.84104>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.53812>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3029258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.83555>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.622696>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.212854>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.81887>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.676254>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1426165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.508766>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.31215>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1966195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.39367>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.22042>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1732483>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.7071>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.52882>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1782832>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.9678>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=68.7599>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2078903>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.0396>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=64.8092>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2303982>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94596>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.628746>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3172143>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.82412>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52549>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2986264>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.82625>, 'reconstruction_l
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.5739>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2523487>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.395065>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.20774>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.187324>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.734215>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.5127>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2215087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.949974>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.67415>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.275823>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.72076>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.48913>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.231627>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.23225>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.06292>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1693242>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.356606>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.1453>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2113025>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.23717>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.072365>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1648037>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.53279>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.245285>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2875075>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.9635>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=66.69334>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.270164>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.49718>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.2727>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2244785>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.373146>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.179924>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.193219>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.9059>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.66204>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2438571>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.103645>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.924473>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.179169>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.18073>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.067085>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.113647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.81403>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.682816>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1312146>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.13287>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.914764>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2181072>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.0599>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=65.87158>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1883132>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.64615>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.544624>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1015258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.21242>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.15881>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.0536013>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.77701>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.65228>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1247241>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.70263>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.47692>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2257104>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.71345>, 'reconstruction_l
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=70.50062>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2128265>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.19932>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86439>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3349323>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.962524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.629036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.33349>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.29396>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.09703>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1969266>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.34212>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.12258>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.219537>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.534706>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.32121>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2134953>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.800766>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.5027>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2980638>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.310234>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.974815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3354201>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.199554>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.87639>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3231666>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.42015>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.13676>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.28339>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.00147>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.765465>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.236007>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.49737>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.31388>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1834874>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.21138>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.037895>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.173482>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.340096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.082825>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.257269>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.42751>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.139595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2879167>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69051>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.39326>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2972598>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.03917>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.80516>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2340121>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.884735>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.6905>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1942344>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.364944>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.13585>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.229093>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.77264>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.55504>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2175968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.43163>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.07979>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3518414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.62409>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.35171>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2723866>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72653>, 'reconstruction_loss':
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.47511>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.2514176>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.4478>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.24648>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.201318>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.26192>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.02762>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2343006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.58512>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.324593>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2605286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.77642>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.49>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.286422>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.72619>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.4951>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.2310853>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.528915>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.365074>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.163842>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.36847>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.189316>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1791542>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.45888>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.28704>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.171833>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.69165>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.51223>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1794198>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.1756>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=65.00331>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.172284>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.36753>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.22284>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.144692>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.34677>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.16195>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1848254>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.90592>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.697>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.208926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.0525>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.82897>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.2235274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.7256>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=70.53165>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.1939526>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.526085>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.29472>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2313645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.94839>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.7273>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.2210846>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.50144>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.30321>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1982334>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.24923>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.975876>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.273357>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.56228>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.3233>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.238977>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.182144>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.92389>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2582562>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.42642>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.20297>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.2234473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.80887>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.53291>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2759533>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94302>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.73741>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2056115>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.57125>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.38388>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1873727>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.65759>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.40825>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2493472>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.83129>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.5223>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.308988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.092545>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.64226>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.45029>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.87794>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.5539>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.324035>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.12484>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.901955>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.222882>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.027504>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.889565>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.137937>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.05885>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.68933>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3695183>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.73255>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.301506>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4310424>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.43313>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.202614>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2305176>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.596436>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.390076>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2063584>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59165>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.39235>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1993022>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.43223>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.33208>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1001503>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.985>, 'reconstruction_lo
s': <tf.Tensor: shape=(), dtype=float32, numpy=66.836876>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1481268>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.34633>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.122345>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2239838>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.27248>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.011925>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2605484>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.76982>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.53111>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2387092>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.55128>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.364365>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1869152>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.07353>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.86095>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2125847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.45688>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.23388>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2230015>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.4693>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.257675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.211621>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.26424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.07764>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1865966>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.10038>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84473>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2556567>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.58609>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.32875>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.257338>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.65866>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.38543>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2732315>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.117744>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.91441>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.203331>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.25104>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.01094>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2401009>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.31928>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.05043>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2688522>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.26623>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.012596>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2536292>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.49484>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.28928>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2055557>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.93303>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.737595>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1954374>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.97534>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.823235>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1521046>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.16373>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.031605>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.132119>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.31566>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.10784>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2078133>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.07944>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.913986>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1654508>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.99303>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=61.80416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.188868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.350555>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.23384>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1167142>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.60889>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.473564>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1353211>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=81.061615>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.846954>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2146645>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.90053>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.68891>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.211615>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.34579>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.119705>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2260804>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.692764>, 'reconstruction_loss':
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.50932>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1834414>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.095894>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.89888>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1970143>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.311195>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.03084>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2803566>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.754196>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.50261>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2515893>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.03641>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.82343>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2129726>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.9618>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=64.76158>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2002156>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.07286>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.811745>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2611141>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.60497>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.22861>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3763652>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.668846>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.25343>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.4154098>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.235855>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.95291>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2829475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.54455>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.35019>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1943586>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.29122>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.11108>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1801465>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.697365>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.46382>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.233546>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.23752>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.06735>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1701634>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.36582>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.21761>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1482053>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.01433>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.870895>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1434345>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.10659>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.91948>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.187112>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.75018>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.544365>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.205822>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.449715>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.2449>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2048087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.69569>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.45985>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.235838>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.609436>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.43411>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1753259>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.28203>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.173294>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1087365>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.444496>, 'reconstruction_
```

```
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.17022>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.274274>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.89113>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.64621>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2449203>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.94026>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.58392>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.356338>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.19115>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.91938>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2717698>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.03366>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.84181>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.191852>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.616745>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.34982>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.266919>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.243546>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.906715>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3368316>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.921906>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.59375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3281548>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.95217>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.71359>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.238577>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27834>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.98427>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.294072>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.72667>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.44998>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2766871>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.13976>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.90364>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.236119>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.82291>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.52566>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2972488>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.901054>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.62158>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.279473>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.73076>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.568634>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1621222>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.45324>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.24087>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2123752>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.03683>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.82341>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2134182>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59914>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.405205>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1939301>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.6442>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.54036>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1038423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.59369>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.41364>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1800432>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.807175>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.5815>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2256744>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.75493>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.514206>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2407246>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.13963>, 'reconstruction_loss':
```



```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.8973>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2423286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.5922>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=64.45824>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1339679>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.688736>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.554047>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1346898>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.36481>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.18748>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.17733>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.992874>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.78828>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2046006>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.11441>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.831795>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2826145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.917595>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.642017>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.275576>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.36498>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.146225>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2187552>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24317>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.979706>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2634635>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.444305>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.345024>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.0992782>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.40292>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.2387>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.164224>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.24423>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.98064>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2635963>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.50226>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.24585>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2564087>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.02516>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.88158>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1435876>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.65763>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.483826>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1738062>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.394745>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.27373>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1210194>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.89937>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.71634>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1830306>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.56148>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.33632>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2251568>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.92786>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.74514>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.182713>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.71308>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.45206>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2610245>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.39365>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=76.090675>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.302974>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.47965>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.19758>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.282072>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.922615>, 'reconstruction_
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.65651>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2661033>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.58897>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.43218>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1567812>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.547806>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.40823>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1395707>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.87108>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.73106>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1400218>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.74988>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.57631>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.173572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.80472>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.62883>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1758893>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.84614>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.63886>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.207276>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.876045>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.68822>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1878304>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.799736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.57866>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2210758>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.3786>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.130226>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2483718>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.32641>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.12213>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.204277>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43864>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.16571>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.272925>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.742516>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.4807>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2618165>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.31141>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.17218>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1392303>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.283676>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.08855>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.195127>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.50825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.25638>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2518673>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.98915>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.765205>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2239451>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.778114>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.61624>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1618762>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.02927>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.901505>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1277623>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.41317>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.26131>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1518638>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.11069>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.9256>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.185091>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.1255>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.83085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2946541>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.43764>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.83085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2946541>}
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.15166>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2859788>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.77644>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.462265>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3141816>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.88156>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.69457>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1869895>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41262>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.364296>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.048323>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.93558>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.77779>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.157792>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.26513>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.152145>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1129825>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27263>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.08683>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1857967>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.39215>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.183334>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.208815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.95297>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.78528>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1676908>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.270096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.11922>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1508822>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74879>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.64883>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.0999572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.26698>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.09823>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1687572>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.73287>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.45293>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2799423>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27518>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.06089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2142887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.56736>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.32953>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2378342>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.279785>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.05332>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2264647>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.11095>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.90348>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2074637>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.45016>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.19944>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2507164>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.18224>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.93796>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2442842>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.98655>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.7729>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2136464>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45549>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.25244>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2030456>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.200966>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.87827>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3226917>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.18706>, 'reconstruction_loss':
```

```
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.85764>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3294113>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.85174>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.57242>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2793212>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.497696>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.218956>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2787387>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.99171>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.77002>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2216868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.61157>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.45375>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1578217>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.8524>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.64548>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2069252>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.938034>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.72571>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2123246>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.26678>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.10883>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1579425>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.12781>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.91213>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2156715>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.47295>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.253235>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2197175>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.022964>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.81332>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2096488>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.597565>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.345604>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2519593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.3741>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.128944>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.245153>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.07621>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.84416>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2320511>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.32618>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.10752>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2186618>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72896>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.52487>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.20409>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.665436>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.51125>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1541815>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.93207>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.77607>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1559951>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.16148>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.953476>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2080047>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.37193>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.129074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2428596>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.68854>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.47089>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2176502>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.11071>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.876015>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2346978>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.3364>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.129074>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2428596>}
```

```
ss': <tf.Tensor: shape=(), dtype=float32, numpy=71.156525>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1798797>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.44292>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.34039>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.102525>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.13816>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.78597>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3521914>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.942474>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.61199>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3304818>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.87266>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.63301>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2396455>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.18039>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.90773>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2726579>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.9207>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.62271>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2979896>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.79775>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.53275>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.264997>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.787964>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.61978>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1681828>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.45153>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.2541>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1974308>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.3507>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.109493>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.241204>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.03914>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.75423>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2849145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.777336>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.521675>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2556643>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.93825>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.71223>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2260177>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.99798>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.73293>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2650445>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.97951>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.69785>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2816548>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.04248>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.859184>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1832998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.20269>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.02617>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.176519>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.61705>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.43513>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1819196>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.41054>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.26195>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1485927>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.36944>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.24772>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1217167>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.79306>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.56824>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2248254>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.45184>, 'reconstruction_loss':
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.30896>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.1428847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.3338>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=68.12158>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.21222>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.90259>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.72088>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1817122>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.337845>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.12433>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2135162>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.72778>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.57188>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.155904>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.749664>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.5714>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1782615>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.82446>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.624714>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1997492>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.47247>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.31044>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.162032>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.69002>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.576744>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1132698>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.290115>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.16142>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1286907>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.41416>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.21252>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2016454>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.78704>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.60069>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1863475>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.35813>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.17437>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.183765>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.99303>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.73243>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2605968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.64054>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.323395>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.317147>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.830414>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.59513>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.235286>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85005>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.71665>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1334014>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.88>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=65.62404>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2559586>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.667336>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.38556>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2817738>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.70187>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.45276>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.249115>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.52894>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.28201>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.246926>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.14375>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.84985>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2938957>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.07741>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.88137>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.1960368>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.86387>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.75046>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1134114>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.58907>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.51767>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.071405>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.497856>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.280876>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.216977>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.390175>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.20748>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.182694>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.8676>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=62.641117>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2264848>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.09118>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.78671>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3044686>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.236946>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.95664>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2803044>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.739296>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.44926>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2900367>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.62522>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.354355>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2708678>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.318>, 'reconstruction_lo
s': <tf.Tensor: shape=(), dtype=float32, numpy=69.14458>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.173427>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.91654>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.796974>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1195657>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.72999>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.62871>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1012826>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.31824>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.059944>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2582905>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.92598>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.697395>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2285876>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.76784>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.51289>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2549434>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.27098>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.04596>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.225018>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.47464>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.27734>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1972957>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.59587>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.42343>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.17244>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.53165>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.424805>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1068454>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.85366>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.641975>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.211682>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.65764>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.4008>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2568383>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.85777>, 'reconstruction_l
```

```
<tf.Tensor: shape=(), dtype=float32, numpy=68.596085>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2616897>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.476776>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.201164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2756133>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.51336>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.298164>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2151954>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.11307>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.93621>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1768582>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.6754>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.514366>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1610303>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.94835>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.73>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2183444>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.26664>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.01805>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.248586>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.7605>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.52934>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2311516>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.32838>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.14031>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.188061>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.17481>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.01221>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.162605>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.770226>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.588356>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1818726>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.93772>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.711136>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2265842>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.19843>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.019745>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1786847>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.84177>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.7225>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.119265>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.23469>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.12374>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1109452>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.29915>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.1176>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1815517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.207115>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.92555>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.281562>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.60424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.321335>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2829025>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.68609>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.35759>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3284988>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.82152>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.53355>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2879677>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.31835>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.017845>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.300507>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.60193>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.307556>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.294375>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.24889>, 'reconstruction_loss':
```



```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.03808>, 'kl_loss': <tf.Tensor: shape=
=(), dtype=float32, numpy=3.210812>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.64872>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.51277>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1359482>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.97182>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.680435>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2913787>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.3352>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=73.02986>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.305336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.40764>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.064285>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3433502>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.30663>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.09297>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2136586>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.63115>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.51041>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1207426>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.05709>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.87701>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1800835>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.19181>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.8988>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.29301>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.00449>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.785805>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2186882>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.304>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.014725>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2892795>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.9224>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.67836>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2440426>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.82076>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.58759>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2331703>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.653015>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.457115>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.195899>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.23937>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.19952>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.0398555>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.198044>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.01979>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.178254>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.24883>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.0269>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2219322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.839005>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.66301>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1759984>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.71901>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=73.442535>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2764764>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.512764>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.323685>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.1890807>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.03422>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.846596>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1876242>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.58978>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.34585>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2439373>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.63568>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.38701>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.248675>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.872604>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.65529>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.217315>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.82888>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.63807>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1908135>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.033104>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.794075>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2390304>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.8086>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=69.52449>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.2841077>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.45649>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.176476>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2800148>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.23223>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.96241>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2698224>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.502754>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.289196>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.213555>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.847275>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.654915>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.192356>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.07388>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.762634>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.3112457>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.83097>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.52643>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.30454>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.51029>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.16691>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3433826>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.20162>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.85425>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.3473716>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.37739>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.12754>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.249844>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.508705>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.27647>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2322395>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.826706>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.61685>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2098517>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.84546>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.63509>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2103665>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.69297>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.47034>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.22263>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.2952>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=66.17526>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1199322>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.955475>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.757>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.198469>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.912834>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.66809>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2447464>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.79075>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.629005>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.16174>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.4731>, 'reconstruction_lo
```

```
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.31565>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1574461>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=76.03918>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.851974>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1872005>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.98017>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.76863>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2115426>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.23338>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.06616>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1672225>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.33131>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.11534>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.215968>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.46188>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.30267>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1592107>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.52666>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.370316>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1563442>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.13361>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.94918>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1844325>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.63618>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.48992>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1462562>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=77.36975>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=74.08612>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2836273>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.70581>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.444725>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2610886>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.42456>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.24664>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1779144>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.07085>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.89292>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1779258>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.65883>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.40772>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2511036>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.47125>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.19664>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2746117>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.35928>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=64.12681>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2324753>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.98359>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.75614>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.22745>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.20245>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=70.92609>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.276368>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.68081>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.457245>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2235646>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.30029>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.09807>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2022278>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.723114>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.58593>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1371872>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.68288>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.48454>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1983361>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.31713>, 'reconstruction_l
```

```
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.06711>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2500215>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.726494>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.4879>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2385948>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.29698>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.14155>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1554337>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.852066>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.64443>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2076359>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.7547>, 'reconstruction_lo
ss': <tf.Tensor: shape=(), dtype=float32, numpy=67.56734>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1873593>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.05211>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.86042>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.191687>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.19406>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=63.037693>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.156372>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.957405>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.655716>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.3016887>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.34977>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.10109>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.24868>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.919624>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=64.642105>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2775192>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.44229>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=65.21237>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2299187>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.124435>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=66.04294>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.0814998>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.79202>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=67.61093>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1810884>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.88254>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.710594>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.171941>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.640076>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.45665>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.1834297>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.99463>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=72.74782>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2468097>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.97971>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.85>, 'kl_loss': <tf.Tensor: shape=
(), dtype=float32, numpy=3.1297145>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.98103>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=66.85278>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.1282487>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.94373>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=69.68729>, 'kl_loss': <tf.Tensor: shape
=(), dtype=float32, numpy=3.2564502>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.61127>, 'reconstruction_l
oss': <tf.Tensor: shape=(), dtype=float32, numpy=68.368095>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.243171>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.152016>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.892685>, 'kl_loss': <tf.Tensor: sha
pe=(), dtype=float32, numpy=3.2593277>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.163605>, 'reconstruction_
loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.87025>, 'kl_loss': <tf.Tensor: shap
e=(), dtype=float32, numpy=3.2933578>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=74.94014>, 'reconstruction_l
```

```

oss': <tf.Tensor: shape=(), dtype=float32, numpy=71.62473>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3154037>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.20569>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.08197>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1237187>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.991936>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=63.00088>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=2.991055>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=82.78074>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=79.557076>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.223662>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.33176>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.07593>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2558312>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=72.6958>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.502205>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1935923>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.39424>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=62.155605>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2386336>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=78.72839>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=75.3982>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.330195>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.34096>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=69.9593>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.3816597>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.81113>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.66577>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.1453552>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=71.10204>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=67.897194>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2048485>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=68.99968>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=65.76955>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2301345>}
Losses: {'loss': <tf.Tensor: shape=(), dtype=float32, numpy=73.48832>, 'reconstruction_loss': <tf.Tensor: shape=(), dtype=float32, numpy=70.24698>, 'kl_loss': <tf.Tensor: shape=(), dtype=float32, numpy=3.2413406>}
Epoch 20/20 - Training complete

```

In [13]: `import matplotlib.pyplot as plt`

```

# Display a grid of 15x15 digits (225 digits total)
n = 15
digit_size = 28

figure = np.zeros((digit_size * n, digit_size * n))
grid_x = np.linspace(-15, 15, n)
grid_y = np.linspace(-15, 15, n)

# Loop over each vector instead
for i, yi in enumerate(grid_x):
    for j, xi in enumerate(grid_y):
        z_sample_part = np.array([[xi, yi]])
        z_sample_random = np.random.normal(0, 1, (1, latent_dim - 2))
        z_sample = np.hstack((z_sample_part, z_sample_random))
        x_decoded = vae.decoder.predict(z_sample)
        digit = x_decoded[0].reshape(digit_size, digit_size)
        figure[i * digit_size: (i + 1) * digit_size,
              j * digit_size: (j + 1) * digit_size] = digit

plt.figure(figsize=(10, 10))
plt.imshow(figure, cmap='Greys_r')
plt.savefig(f"{result_dir}/digits_over_latent.png")

```

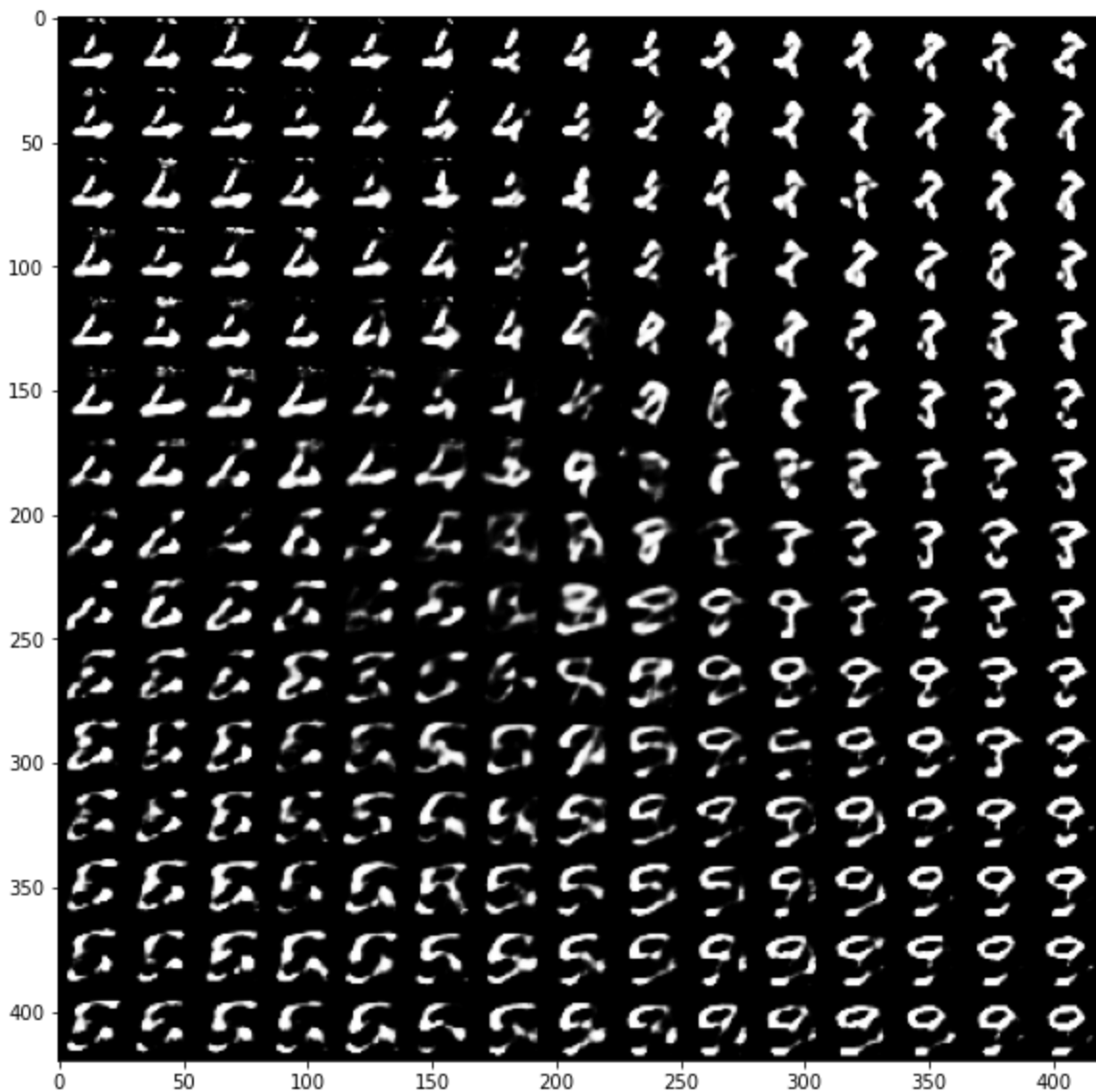
1/1 [=====] - 0s 61ms/step

[illegible]

[illegible]

[illegible]


```
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 21ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 23ms/step
1/1 [=====] - 0s 20ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 22ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 21ms/step
1/1 [=====] - 0s 23ms/step
1/1 [=====] - 0s 19ms/step
1/1 [=====] - 0s 20ms/step
1/1 [=====] - 0s 20ms/step
1/1 [=====] - 0s 20ms/step
1/1 [=====] - 0s 21ms/step
1/1 [=====] - 0s 21ms/step
1/1 [=====] - 0s 20ms/step
```



In []:

