

# experimento-Copy1

November 3, 2019

```
In [1]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

from sklearn.preprocessing import LabelEncoder, OneHotEncoder
from sklearn.model_selection import train_test_split
from sklearn.preprocessing import StandardScaler
#from sklearn import metrics

from keras.wrappers.scikit_learn import KerasRegressor
#from keras import metrics
from keras.models import Sequential
from keras.layers import Dense
from keras.callbacks import ModelCheckpoint
from keras.callbacks import EarlyStopping

# load a saved model
from keras.models import load_model

from matplotlib import pyplot

import os
%matplotlib inline
print(os.listdir("../dados/input"))
```

Using TensorFlow backend.

```
['teste.csv', 'todos.csv', 'todos2.csv', 'todos2.ods', 'treino.csv']
```

```
In [2]: original_data = pd.read_csv('../dados/input/treino.csv')
```

```
In [3]: X_train = original_data.iloc[:,1:19]
```

```
In [4]: X_train.values
```

```
Out[4]: array([[ 29.9 ,  77.25,   0. , ..., 101. , 178. , 215. ],
               [ 29.2 ,  74.25,   1. , ..., 178. , 215. , 263. ],
               [ 31.9 ,  67.5 ,   0. , ..., 215. , 263. , 145. ],
               ...,
               [ 24.1 ,  88.25,   1. , ...,   0. ,   0. ,   0. ],
               [ 20.3 ,  78.75,   0. , ...,   0. ,   0. ,   0. ],
               [ 25.2 ,  83.5 ,   0. , ...,   0. ,   0. ,   0. ]])
```

```
In [5]: Y_train = original_data.iloc[:,19].values
```

```
In [6]: Y_train
```

```
Out[6]: array([ 42,  70,  64, 101, 178, 215, 263, 145, 295, 351, 387, 294, 194,
                460, 363, 437, 314, 212, 396, 336, 427, 312, 218, 407, 428, 306,
                220, 367, 352, 463, 320, 306, 451, 353,  95, 149, 209, 227, 202,
                233, 391, 358, 456, 335, 323, 469, 319, 297, 411, 370, 412, 331,
                255, 446, 394, 472, 361, 263, 428, 336, 470, 343, 232, 449, 386,
                477, 377, 347, 480, 359, 224, 450, 375, 491, 347, 266, 415, 405,
                464, 358, 253, 446, 388, 523, 346, 245, 438, 361, 503, 319,  39,
                 45,  97, 115, 138, 134, 211, 308, 353, 401, 382, 321, 352, 428,
                453, 433, 376, 449, 403, 286, 408, 393, 442, 431,  17,  12,  17,
                 27,  16, 141, 117,  42,  20, 363, 162,  35, 351,  21,  23,  27,
                 28, 162,  23,  14,  84,  41,  9,  15,  15,  17,  26,  10,  14,
                 17,  26,  10,  22,  14], dtype=int64)
```

```
In [7]: test_data = pd.read_csv('../dados/input/teste.csv')
```

```
In [8]: Y_test = test_data.iloc[:,19].values
```

```
In [9]: X_test = test_data.iloc[:,1:19]
```

```
In [10]: scaler = StandardScaler().fit(X_train)
          standardized_X_train = scaler.transform(X_train)
          standardized_X_test = scaler.transform(X_test)
```

```
In [11]: early_stopping_monitor = EarlyStopping(
                                                monitor = 'mean_squared_error',
                                                mode = 'min',
                                                min_delta=1,
                                                verbose=0,
                                                patience = 500
      )
      model_checkpoint = ModelCheckpoint('best_model.h5', monitor='mean_squared_error', mode='min')
```

```
In [12]: model1 = Sequential()
          model1.add(
              Dense(
                  9,
                  activation='relu',
```

```

        input_dim=standardized_X_train.shape[1]
    )
)
model1.add(
    Dense(1)
)
model1.compile(
    loss='mean_squared_error',
    optimizer='adam',
    metrics=[
        'accuracy',
        'mse',
        'mae',
    ]
)

```

```

In [13]: model1_history = model1.fit(
    standardized_X_train,
    Y_train,
    batch_size=148,
    epochs=5000,
    validation_split=0.3,
    #validation_data=(standardized_X_test,Y_test),
    verbose=0,
    callbacks=[model_checkpoint,early_stopping_monitor]
)

```

```

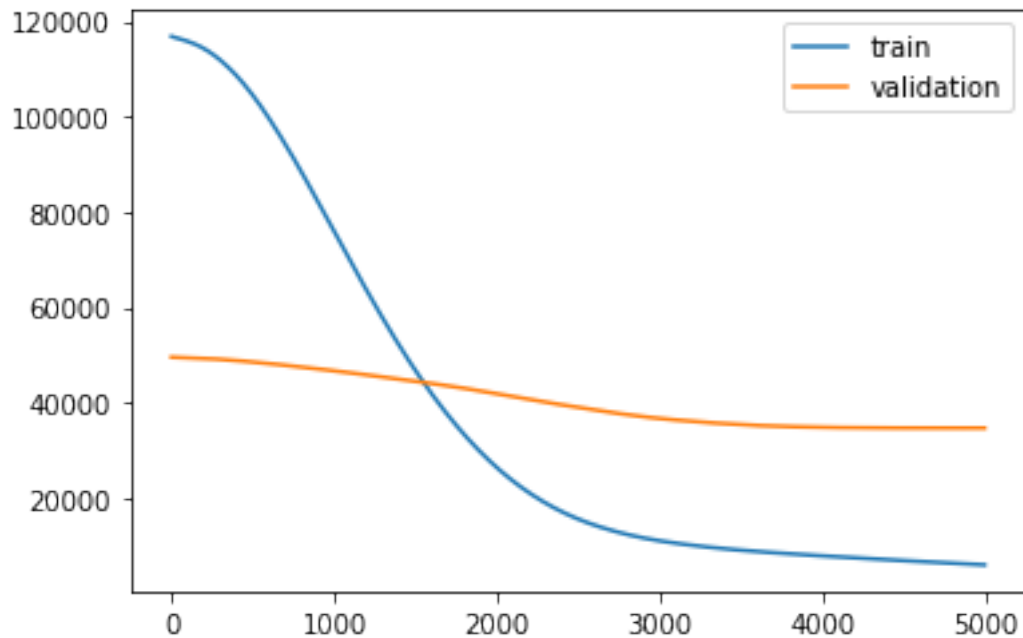
saved_model1 = load_model('best_model.h5')

```

```

pyplot.plot(model1_history.history['loss'], label='train')
pyplot.plot(model1_history.history['val_loss'], label='validation')
pyplot.legend()
pyplot.show()

```



```
In [14]: model2 = Sequential()

model2.add(
    Dense(
        standardized_X_train.shape[1],
        activation='relu',
        input_dim=standardized_X_train.shape[1]
    )
)
model2.add(
    Dense(
        9,
        activation='relu',
        input_dim=standardized_X_train.shape[1]
    )
)
model2.add(
    Dense(1)
)
model2.compile(
    loss='mean_squared_error',
    optimizer='adam',
    metrics=[
        'accuracy',
        'mse',
        'mae',
    ],
)
```

```

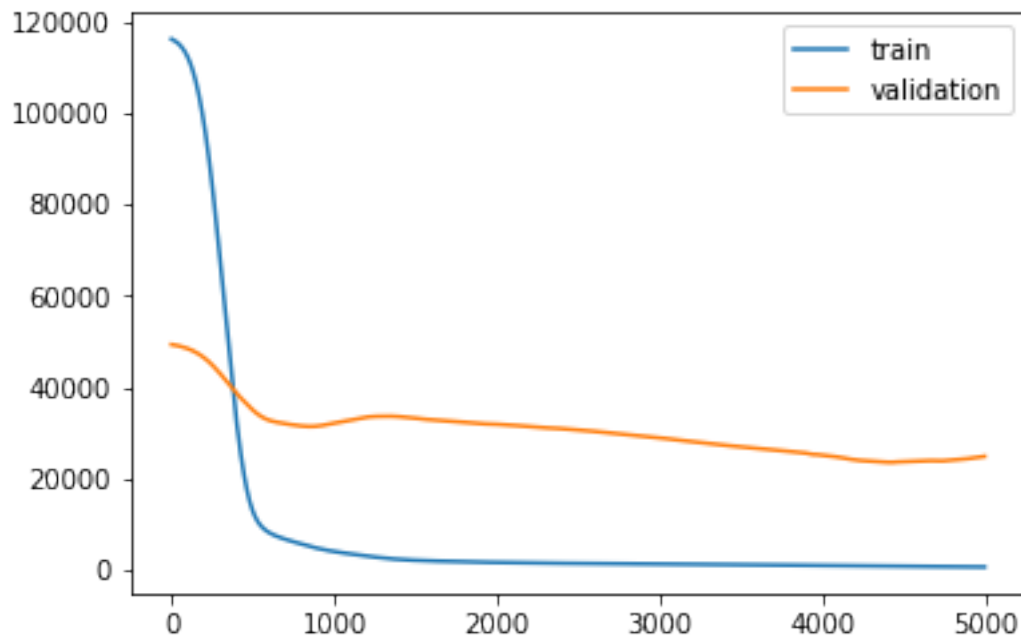
    ]
)

In [15]: model2_history = model2.fit(
    standardized_X_train,
    Y_train,
    batch_size=148,
    epochs=5000,
    validation_split=0.3,
    #validation_data=(standardized_X_test,Y_test),
    verbose=0,
    callbacks=[model_checkpoint,early_stopping_monitor]
)

saved_model2 = load_model('best_model.h5')

pyplot.plot(model2_history.history['loss'], label='train')
pyplot.plot(model2_history.history['val_loss'], label='validation')
pyplot.legend()
pyplot.show()

```



```

In [16]: model3 = Sequential()
    model3.add(
        Dense(
            standardized_X_train.shape[1],
            activation='relu',
            input_dim=standardized_X_train.shape[1]

```

```

    )
)
model3.add(
    Dense(
        10,
        activation='relu',
        input_dim=standardized_X_train.shape[1]
    )
)
model3.add(
    Dense(
        5,
        activation='relu',
        input_dim=10
    )
)
model3.add(
    Dense(1)
)
model3.compile(
    loss='mean_squared_error',
    optimizer='adam',
    metrics=[
        'accuracy',
        'mse',
        'mae',
    ]
)

```

```

In [17]: model3_history = model3.fit(
    standardized_X_train,
    Y_train,
    batch_size=148,
    epochs=5000,
    validation_split=0.3,
    #validation_data=(standardized_X_test,Y_test),
    callbacks=[model_checkpoint,early_stopping_monitor]
)

```

```

saved_model3 = load_model('best_model.h5')

```

```

pyplot.plot(model3_history.history['loss'], label='train')
pyplot.plot(model3_history.history['val_loss'], label='validation')
pyplot.legend()
pyplot.show()

```

Train on 103 samples, validate on 45 samples

Epoch 1/5000

103/103 [=====] - 0s 5ms/step - loss: 116369.0781 - acc: 0.0000e+00 -

Epoch 2/5000  
103/103 [=====] - 0s 29us/step - loss: 116356.7656 - acc: 0.0000e+00  
Epoch 3/5000  
103/103 [=====] - 0s 19us/step - loss: 116346.5234 - acc: 0.0000e+00  
Epoch 4/5000  
103/103 [=====] - 0s 29us/step - loss: 116335.8125 - acc: 0.0000e+00  
Epoch 5/5000  
103/103 [=====] - 0s 29us/step - loss: 116324.6406 - acc: 0.0000e+00  
Epoch 6/5000  
103/103 [=====] - 0s 29us/step - loss: 116312.7969 - acc: 0.0000e+00  
Epoch 7/5000  
103/103 [=====] - 0s 29us/step - loss: 116300.9141 - acc: 0.0000e+00  
Epoch 8/5000  
103/103 [=====] - 0s 19us/step - loss: 116289.5234 - acc: 0.0000e+00  
Epoch 9/5000  
103/103 [=====] - 0s 29us/step - loss: 116278.1094 - acc: 0.0000e+00  
Epoch 10/5000  
103/103 [=====] - 0s 29us/step - loss: 116266.5234 - acc: 0.0000e+00  
Epoch 11/5000  
103/103 [=====] - 0s 29us/step - loss: 116254.9922 - acc: 0.0000e+00  
Epoch 12/5000  
103/103 [=====] - 0s 29us/step - loss: 116243.2500 - acc: 0.0000e+00  
Epoch 13/5000  
103/103 [=====] - 0s 19us/step - loss: 116231.2891 - acc: 0.0000e+00  
Epoch 14/5000  
103/103 [=====] - 0s 29us/step - loss: 116219.2266 - acc: 0.0000e+00  
Epoch 15/5000  
103/103 [=====] - 0s 39us/step - loss: 116206.8516 - acc: 0.0000e+00  
Epoch 16/5000  
103/103 [=====] - 0s 29us/step - loss: 116194.2344 - acc: 0.0000e+00  
Epoch 17/5000  
103/103 [=====] - 0s 29us/step - loss: 116181.3281 - acc: 0.0000e+00  
Epoch 18/5000  
103/103 [=====] - 0s 19us/step - loss: 116168.1641 - acc: 0.0000e+00  
Epoch 19/5000  
103/103 [=====] - 0s 29us/step - loss: 116154.6953 - acc: 0.0000e+00  
Epoch 20/5000  
103/103 [=====] - 0s 29us/step - loss: 116141.0000 - acc: 0.0000e+00  
Epoch 21/5000  
103/103 [=====] - 0s 29us/step - loss: 116126.8281 - acc: 0.0000e+00  
Epoch 22/5000  
103/103 [=====] - 0s 29us/step - loss: 116112.2656 - acc: 0.0000e+00  
Epoch 23/5000  
103/103 [=====] - 0s 29us/step - loss: 116097.2266 - acc: 0.0000e+00  
Epoch 24/5000  
103/103 [=====] - 0s 29us/step - loss: 116081.6484 - acc: 0.0000e+00  
Epoch 25/5000  
103/103 [=====] - 0s 29us/step - loss: 116065.5469 - acc: 0.0000e+00

Epoch 26/5000  
103/103 [=====] - 0s 29us/step - loss: 116049.0703 - acc: 0.0000e+00  
Epoch 27/5000  
103/103 [=====] - 0s 29us/step - loss: 116032.2344 - acc: 0.0000e+00  
Epoch 28/5000  
103/103 [=====] - 0s 19us/step - loss: 116014.9922 - acc: 0.0000e+00  
Epoch 29/5000  
103/103 [=====] - 0s 29us/step - loss: 115997.0547 - acc: 0.0000e+00  
Epoch 30/5000  
103/103 [=====] - 0s 29us/step - loss: 115978.3906 - acc: 0.0000e+00  
Epoch 31/5000  
103/103 [=====] - 0s 29us/step - loss: 115959.1328 - acc: 0.0000e+00  
Epoch 32/5000  
103/103 [=====] - 0s 29us/step - loss: 115939.4453 - acc: 0.0000e+00  
Epoch 33/5000  
103/103 [=====] - 0s 29us/step - loss: 115919.1172 - acc: 0.0000e+00  
Epoch 34/5000  
103/103 [=====] - 0s 19us/step - loss: 115897.8125 - acc: 0.0000e+00  
Epoch 35/5000  
103/103 [=====] - 0s 29us/step - loss: 115875.8906 - acc: 0.0000e+00  
Epoch 36/5000  
103/103 [=====] - 0s 29us/step - loss: 115853.4297 - acc: 0.0000e+00  
Epoch 37/5000  
103/103 [=====] - 0s 19us/step - loss: 115830.3672 - acc: 0.0000e+00  
Epoch 38/5000  
103/103 [=====] - 0s 29us/step - loss: 115806.8828 - acc: 0.0000e+00  
Epoch 39/5000  
103/103 [=====] - 0s 19us/step - loss: 115782.7969 - acc: 0.0000e+00  
Epoch 40/5000  
103/103 [=====] - 0s 39us/step - loss: 115757.8047 - acc: 0.0000e+00  
Epoch 41/5000  
103/103 [=====] - 0s 29us/step - loss: 115732.4688 - acc: 0.0000e+00  
Epoch 42/5000  
103/103 [=====] - 0s 19us/step - loss: 115706.4297 - acc: 0.0000e+00  
Epoch 43/5000  
103/103 [=====] - 0s 29us/step - loss: 115679.1094 - acc: 0.0000e+00  
Epoch 44/5000  
103/103 [=====] - 0s 29us/step - loss: 115651.0391 - acc: 0.0000e+00  
Epoch 45/5000  
103/103 [=====] - 0s 29us/step - loss: 115622.4297 - acc: 0.0000e+00  
Epoch 46/5000  
103/103 [=====] - 0s 29us/step - loss: 115592.6875 - acc: 0.0000e+00  
Epoch 47/5000  
103/103 [=====] - 0s 29us/step - loss: 115561.8047 - acc: 0.0000e+00  
Epoch 48/5000  
103/103 [=====] - 0s 29us/step - loss: 115530.4141 - acc: 0.0000e+00  
Epoch 49/5000  
103/103 [=====] - 0s 29us/step - loss: 115498.1250 - acc: 0.0000e+00



Epoch 50/5000  
103/103 [=====] - 0s 29us/step - loss: 115464.6641 - acc: 0.0000e+00  
Epoch 51/5000  
103/103 [=====] - 0s 29us/step - loss: 115430.5703 - acc: 0.0000e+00  
Epoch 52/5000  
103/103 [=====] - 0s 19us/step - loss: 115395.3359 - acc: 0.0000e+00  
Epoch 53/5000  
103/103 [=====] - 0s 39us/step - loss: 115359.1250 - acc: 0.0000e+00  
Epoch 54/5000  
103/103 [=====] - 0s 29us/step - loss: 115321.8281 - acc: 0.0000e+00  
Epoch 55/5000  
103/103 [=====] - 0s 29us/step - loss: 115283.4141 - acc: 0.0000e+00  
Epoch 56/5000  
103/103 [=====] - 0s 39us/step - loss: 115243.8906 - acc: 0.0000e+00  
Epoch 57/5000  
103/103 [=====] - 0s 39us/step - loss: 115202.8125 - acc: 0.0000e+00  
Epoch 58/5000  
103/103 [=====] - 0s 29us/step - loss: 115161.0391 - acc: 0.0000e+00  
Epoch 59/5000  
103/103 [=====] - 0s 29us/step - loss: 115117.7969 - acc: 0.0000e+00  
Epoch 60/5000  
103/103 [=====] - 0s 49us/step - loss: 115073.3125 - acc: 0.0000e+00  
Epoch 61/5000  
103/103 [=====] - 0s 29us/step - loss: 115027.4297 - acc: 0.0000e+00  
Epoch 62/5000  
103/103 [=====] - 0s 19us/step - loss: 114980.2656 - acc: 0.0000e+00  
Epoch 63/5000  
103/103 [=====] - 0s 29us/step - loss: 114932.1094 - acc: 0.0000e+00  
Epoch 64/5000  
103/103 [=====] - 0s 39us/step - loss: 114882.4922 - acc: 0.0000e+00  
Epoch 65/5000  
103/103 [=====] - 0s 39us/step - loss: 114831.6875 - acc: 0.0000e+00  
Epoch 66/5000  
103/103 [=====] - 0s 39us/step - loss: 114779.3281 - acc: 0.0000e+00  
Epoch 67/5000  
103/103 [=====] - 0s 29us/step - loss: 114725.5625 - acc: 0.0000e+00  
Epoch 68/5000  
103/103 [=====] - 0s 29us/step - loss: 114670.4297 - acc: 0.0000e+00  
Epoch 69/5000  
103/103 [=====] - 0s 29us/step - loss: 114614.1172 - acc: 0.0000e+00  
Epoch 70/5000  
103/103 [=====] - 0s 29us/step - loss: 114556.3672 - acc: 0.0000e+00  
Epoch 71/5000  
103/103 [=====] - 0s 39us/step - loss: 114497.0781 - acc: 0.0000e+00  
Epoch 72/5000  
103/103 [=====] - 0s 39us/step - loss: 114436.0391 - acc: 0.0000e+00  
Epoch 73/5000  
103/103 [=====] - 0s 39us/step - loss: 114374.0000 - acc: 0.0000e+00

Epoch 74/5000  
103/103 [=====] - 0s 29us/step - loss: 114310.5234 - acc: 0.0000e+00  
Epoch 75/5000  
103/103 [=====] - 0s 29us/step - loss: 114245.7578 - acc: 0.0000e+00  
Epoch 76/5000  
103/103 [=====] - 0s 29us/step - loss: 114179.6797 - acc: 0.0000e+00  
Epoch 77/5000  
103/103 [=====] - 0s 29us/step - loss: 114111.7500 - acc: 0.0000e+00  
Epoch 78/5000  
103/103 [=====] - 0s 29us/step - loss: 114042.9297 - acc: 0.0000e+00  
Epoch 79/5000  
103/103 [=====] - 0s 29us/step - loss: 113972.3672 - acc: 0.0000e+00  
Epoch 80/5000  
103/103 [=====] - 0s 29us/step - loss: 113900.4062 - acc: 0.0000e+00  
Epoch 81/5000  
103/103 [=====] - 0s 29us/step - loss: 113827.0156 - acc: 0.0000e+00  
Epoch 82/5000  
103/103 [=====] - 0s 29us/step - loss: 113752.6016 - acc: 0.0000e+00  
Epoch 83/5000  
103/103 [=====] - 0s 29us/step - loss: 113676.3906 - acc: 0.0000e+00  
Epoch 84/5000  
103/103 [=====] - 0s 29us/step - loss: 113598.5703 - acc: 0.0000e+00  
Epoch 85/5000  
103/103 [=====] - 0s 39us/step - loss: 113519.6250 - acc: 0.0000e+00  
Epoch 86/5000  
103/103 [=====] - 0s 29us/step - loss: 113439.3203 - acc: 0.0000e+00  
Epoch 87/5000  
103/103 [=====] - 0s 39us/step - loss: 113356.9688 - acc: 0.0000e+00  
Epoch 88/5000  
103/103 [=====] - 0s 29us/step - loss: 113272.9844 - acc: 0.0000e+00  
Epoch 89/5000  
103/103 [=====] - 0s 29us/step - loss: 113187.4375 - acc: 0.0000e+00  
Epoch 90/5000  
103/103 [=====] - 0s 29us/step - loss: 113100.2734 - acc: 0.0000e+00  
Epoch 91/5000  
103/103 [=====] - 0s 29us/step - loss: 113011.1562 - acc: 0.0000e+00  
Epoch 92/5000  
103/103 [=====] - 0s 29us/step - loss: 112920.3281 - acc: 0.0000e+00  
Epoch 93/5000  
103/103 [=====] - 0s 29us/step - loss: 112828.4297 - acc: 0.0000e+00  
Epoch 94/5000  
103/103 [=====] - 0s 29us/step - loss: 112734.6719 - acc: 0.0000e+00  
Epoch 95/5000  
103/103 [=====] - 0s 29us/step - loss: 112638.3672 - acc: 0.0000e+00  
Epoch 96/5000  
103/103 [=====] - 0s 29us/step - loss: 112540.7266 - acc: 0.0000e+00  
Epoch 97/5000  
103/103 [=====] - 0s 29us/step - loss: 112440.7344 - acc: 0.0000e+00

Epoch 98/5000  
103/103 [=====] - 0s 29us/step - loss: 112338.7344 - acc: 0.0000e+00  
Epoch 99/5000  
103/103 [=====] - 0s 39us/step - loss: 112235.3203 - acc: 0.0000e+00  
Epoch 100/5000  
103/103 [=====] - 0s 29us/step - loss: 112130.0156 - acc: 0.0000e+00  
Epoch 101/5000  
103/103 [=====] - 0s 29us/step - loss: 112022.9844 - acc: 0.0000e+00  
Epoch 102/5000  
103/103 [=====] - 0s 29us/step - loss: 111913.4688 - acc: 0.0000e+00  
Epoch 103/5000  
103/103 [=====] - 0s 39us/step - loss: 111802.5469 - acc: 0.0000e+00  
Epoch 104/5000  
103/103 [=====] - 0s 29us/step - loss: 111689.1250 - acc: 0.0000e+00  
Epoch 105/5000  
103/103 [=====] - 0s 19us/step - loss: 111573.8906 - acc: 0.0000e+00  
Epoch 106/5000  
103/103 [=====] - 0s 29us/step - loss: 111456.5938 - acc: 0.0000e+00  
Epoch 107/5000  
103/103 [=====] - 0s 29us/step - loss: 111337.1094 - acc: 0.0000e+00  
Epoch 108/5000  
103/103 [=====] - 0s 39us/step - loss: 111215.3984 - acc: 0.0000e+00  
Epoch 109/5000  
103/103 [=====] - 0s 39us/step - loss: 111091.4453 - acc: 0.0000e+00  
Epoch 110/5000  
103/103 [=====] - 0s 19us/step - loss: 110964.3359 - acc: 0.0000e+00  
Epoch 111/5000  
103/103 [=====] - 0s 39us/step - loss: 110834.8516 - acc: 0.0000e+00  
Epoch 112/5000  
103/103 [=====] - 0s 39us/step - loss: 110703.3906 - acc: 0.0000e+00  
Epoch 113/5000  
103/103 [=====] - 0s 29us/step - loss: 110568.8125 - acc: 0.0000e+00  
Epoch 114/5000  
103/103 [=====] - 0s 29us/step - loss: 110431.6719 - acc: 0.0000e+00  
Epoch 115/5000  
103/103 [=====] - 0s 29us/step - loss: 110292.3203 - acc: 0.0000e+00  
Epoch 116/5000  
103/103 [=====] - 0s 29us/step - loss: 110149.6406 - acc: 0.0000e+00  
Epoch 117/5000  
103/103 [=====] - 0s 39us/step - loss: 110004.1172 - acc: 0.0000e+00  
Epoch 118/5000  
103/103 [=====] - 0s 39us/step - loss: 109855.8281 - acc: 0.0000e+00  
Epoch 119/5000  
103/103 [=====] - 0s 29us/step - loss: 109705.3359 - acc: 0.0000e+00  
Epoch 120/5000  
103/103 [=====] - 0s 19us/step - loss: 109551.7734 - acc: 0.0000e+00  
Epoch 121/5000  
103/103 [=====] - 0s 39us/step - loss: 109396.1719 - acc: 0.0000e+00

Epoch 122/5000  
103/103 [=====] - 0s 29us/step - loss: 109237.1484 - acc: 0.0000e+00  
Epoch 123/5000  
103/103 [=====] - 0s 29us/step - loss: 109075.9922 - acc: 0.0000e+00  
Epoch 124/5000  
103/103 [=====] - 0s 39us/step - loss: 108911.8828 - acc: 0.0000e+00  
Epoch 125/5000  
103/103 [=====] - 0s 29us/step - loss: 108744.9062 - acc: 0.0000e+00  
Epoch 126/5000  
103/103 [=====] - 0s 39us/step - loss: 108575.0703 - acc: 0.0000e+00  
Epoch 127/5000  
103/103 [=====] - 0s 29us/step - loss: 108401.7266 - acc: 0.0000e+00  
Epoch 128/5000  
103/103 [=====] - 0s 29us/step - loss: 108225.4688 - acc: 0.0000e+00  
Epoch 129/5000  
103/103 [=====] - 0s 39us/step - loss: 108046.8047 - acc: 0.0000e+00  
Epoch 130/5000  
103/103 [=====] - 0s 39us/step - loss: 107865.0000 - acc: 0.0000e+00  
Epoch 131/5000  
103/103 [=====] - 0s 29us/step - loss: 107680.1719 - acc: 0.0000e+00  
Epoch 132/5000  
103/103 [=====] - 0s 29us/step - loss: 107492.1172 - acc: 0.0000e+00  
Epoch 133/5000  
103/103 [=====] - 0s 19us/step - loss: 107301.0391 - acc: 0.0000e+00  
Epoch 134/5000  
103/103 [=====] - 0s 39us/step - loss: 107106.7891 - acc: 0.0000e+00  
Epoch 135/5000  
103/103 [=====] - 0s 29us/step - loss: 106908.6484 - acc: 0.0000e+00  
Epoch 136/5000  
103/103 [=====] - 0s 29us/step - loss: 106708.1328 - acc: 0.0000e+00  
Epoch 137/5000  
103/103 [=====] - 0s 29us/step - loss: 106503.5703 - acc: 0.0000e+00  
Epoch 138/5000  
103/103 [=====] - 0s 29us/step - loss: 106295.5703 - acc: 0.0000e+00  
Epoch 139/5000  
103/103 [=====] - 0s 39us/step - loss: 106084.0781 - acc: 0.0000e+00  
Epoch 140/5000  
103/103 [=====] - 0s 29us/step - loss: 105868.8438 - acc: 0.0000e+00  
Epoch 141/5000  
103/103 [=====] - 0s 39us/step - loss: 105650.7188 - acc: 0.0000e+00  
Epoch 142/5000  
103/103 [=====] - 0s 29us/step - loss: 105428.8125 - acc: 0.0000e+00  
Epoch 143/5000  
103/103 [=====] - 0s 29us/step - loss: 105202.4453 - acc: 0.0000e+00  
Epoch 144/5000  
103/103 [=====] - 0s 29us/step - loss: 104972.3125 - acc: 0.0000e+00  
Epoch 145/5000  
103/103 [=====] - 0s 29us/step - loss: 104739.0703 - acc: 0.0000e+00

Epoch 146/5000  
103/103 [=====] - 0s 39us/step - loss: 104502.0312 - acc: 0.0000e+00 -  
Epoch 147/5000  
103/103 [=====] - 0s 29us/step - loss: 104261.0391 - acc: 0.0000e+00 -  
Epoch 148/5000  
103/103 [=====] - 0s 29us/step - loss: 104015.3359 - acc: 0.0000e+00 -  
Epoch 149/5000  
103/103 [=====] - 0s 29us/step - loss: 103765.6875 - acc: 0.0000e+00 -  
Epoch 150/5000  
103/103 [=====] - 0s 29us/step - loss: 103512.6953 - acc: 0.0000e+00 -  
Epoch 151/5000  
103/103 [=====] - 0s 29us/step - loss: 103255.6328 - acc: 0.0000e+00 -  
Epoch 152/5000  
103/103 [=====] - 0s 29us/step - loss: 102994.2891 - acc: 0.0000e+00 -  
Epoch 153/5000  
103/103 [=====] - 0s 39us/step - loss: 102728.6328 - acc: 0.0000e+00 -  
Epoch 154/5000  
103/103 [=====] - 0s 29us/step - loss: 102458.7734 - acc: 0.0000e+00 -  
Epoch 155/5000  
103/103 [=====] - 0s 29us/step - loss: 102184.5938 - acc: 0.0000e+00 -  
Epoch 156/5000  
103/103 [=====] - 0s 29us/step - loss: 101905.8047 - acc: 0.0000e+00 -  
Epoch 157/5000  
103/103 [=====] - 0s 29us/step - loss: 101622.4297 - acc: 0.0000e+00 -  
Epoch 158/5000  
103/103 [=====] - 0s 29us/step - loss: 101334.2656 - acc: 0.0000e+00 -  
Epoch 159/5000  
103/103 [=====] - 0s 29us/step - loss: 101040.4297 - acc: 0.0000e+00 -  
Epoch 160/5000  
103/103 [=====] - 0s 39us/step - loss: 100741.8672 - acc: 0.0000e+00 -  
Epoch 161/5000  
103/103 [=====] - 0s 39us/step - loss: 100438.6719 - acc: 0.0000e+00 -  
Epoch 162/5000  
103/103 [=====] - 0s 29us/step - loss: 100130.4375 - acc: 0.0000e+00 -  
Epoch 163/5000  
103/103 [=====] - 0s 39us/step - loss: 99818.0078 - acc: 0.0000e+00 -  
Epoch 164/5000  
103/103 [=====] - 0s 29us/step - loss: 99500.5938 - acc: 0.0000e+00 -  
Epoch 165/5000  
103/103 [=====] - 0s 29us/step - loss: 99178.2031 - acc: 0.0000e+00 -  
Epoch 166/5000  
103/103 [=====] - 0s 39us/step - loss: 98850.0391 - acc: 0.0000e+00 -  
Epoch 167/5000  
103/103 [=====] - 0s 39us/step - loss: 98517.8672 - acc: 0.0000e+00 -  
Epoch 168/5000  
103/103 [=====] - 0s 29us/step - loss: 98180.2891 - acc: 0.0000e+00 -  
Epoch 169/5000  
103/103 [=====] - 0s 29us/step - loss: 97837.5312 - acc: 0.0000e+00 -

Epoch 170/5000  
103/103 [=====] - 0s 29us/step - loss: 97488.6406 - acc: 0.0000e+00 -  
Epoch 171/5000  
103/103 [=====] - 0s 29us/step - loss: 97135.4688 - acc: 0.0000e+00 -  
Epoch 172/5000  
103/103 [=====] - 0s 29us/step - loss: 96776.1953 - acc: 0.0000e+00 -  
Epoch 173/5000  
103/103 [=====] - 0s 29us/step - loss: 96412.6953 - acc: 0.0000e+00 -  
Epoch 174/5000  
103/103 [=====] - 0s 39us/step - loss: 96044.0547 - acc: 0.0000e+00 -  
Epoch 175/5000  
103/103 [=====] - 0s 29us/step - loss: 95670.2422 - acc: 0.0000e+00 -  
Epoch 176/5000  
103/103 [=====] - 0s 29us/step - loss: 95290.2656 - acc: 0.0000e+00 -  
Epoch 177/5000  
103/103 [=====] - 0s 29us/step - loss: 94904.7891 - acc: 0.0000e+00 -  
Epoch 178/5000  
103/103 [=====] - 0s 39us/step - loss: 94514.1094 - acc: 0.0000e+00 -  
Epoch 179/5000  
103/103 [=====] - 0s 29us/step - loss: 94118.1172 - acc: 0.0000e+00 -  
Epoch 180/5000  
103/103 [=====] - 0s 29us/step - loss: 93717.5469 - acc: 0.0000e+00 -  
Epoch 181/5000  
103/103 [=====] - 0s 29us/step - loss: 93311.6797 - acc: 0.0000e+00 -  
Epoch 182/5000  
103/103 [=====] - 0s 39us/step - loss: 92899.3750 - acc: 0.0000e+00 -  
Epoch 183/5000  
103/103 [=====] - 0s 29us/step - loss: 92481.6875 - acc: 0.0000e+00 -  
Epoch 184/5000  
103/103 [=====] - 0s 29us/step - loss: 92058.4688 - acc: 0.0000e+00 -  
Epoch 185/5000  
103/103 [=====] - 0s 29us/step - loss: 91629.8750 - acc: 0.0000e+00 -  
Epoch 186/5000  
103/103 [=====] - 0s 29us/step - loss: 91195.7891 - acc: 0.0000e+00 -  
Epoch 187/5000  
103/103 [=====] - 0s 48us/step - loss: 90756.2891 - acc: 0.0000e+00 -  
Epoch 188/5000  
103/103 [=====] - 0s 39us/step - loss: 90311.2500 - acc: 0.0000e+00 -  
Epoch 189/5000  
103/103 [=====] - 0s 39us/step - loss: 89861.7969 - acc: 0.0000e+00 -  
Epoch 190/5000  
103/103 [=====] - 0s 29us/step - loss: 89405.6953 - acc: 0.0000e+00 -  
Epoch 191/5000  
103/103 [=====] - 0s 39us/step - loss: 88945.1641 - acc: 0.0000e+00 -  
Epoch 192/5000  
103/103 [=====] - 0s 39us/step - loss: 88478.1719 - acc: 0.0000e+00 -  
Epoch 193/5000  
103/103 [=====] - 0s 29us/step - loss: 88005.6328 - acc: 0.0000e+00 -

Epoch 194/5000  
103/103 [=====] - 0s 39us/step - loss: 87528.5234 - acc: 0.0000e+00 -

Epoch 195/5000  
103/103 [=====] - 0s 29us/step - loss: 87044.7891 - acc: 0.0000e+00 -

Epoch 196/5000  
103/103 [=====] - 0s 29us/step - loss: 86556.6797 - acc: 0.0000e+00 -

Epoch 197/5000  
103/103 [=====] - 0s 29us/step - loss: 86063.2344 - acc: 0.0000e+00 -

Epoch 198/5000  
103/103 [=====] - 0s 29us/step - loss: 85563.2891 - acc: 0.0000e+00 -

Epoch 199/5000  
103/103 [=====] - 0s 29us/step - loss: 85059.1719 - acc: 0.0000e+00 -

Epoch 200/5000  
103/103 [=====] - 0s 29us/step - loss: 84548.4922 - acc: 0.0000e+00 -

Epoch 201/5000  
103/103 [=====] - 0s 29us/step - loss: 84033.5312 - acc: 0.0000e+00 -

Epoch 202/5000  
103/103 [=====] - 0s 39us/step - loss: 83513.1328 - acc: 0.0000e+00 -

Epoch 203/5000  
103/103 [=====] - 0s 39us/step - loss: 82987.1641 - acc: 0.0000e+00 -

Epoch 204/5000  
103/103 [=====] - 0s 29us/step - loss: 82456.0078 - acc: 0.0000e+00 -

Epoch 205/5000  
103/103 [=====] - 0s 39us/step - loss: 81919.6719 - acc: 0.0000e+00 -

Epoch 206/5000  
103/103 [=====] - 0s 29us/step - loss: 81378.1719 - acc: 0.0000e+00 -

Epoch 207/5000  
103/103 [=====] - 0s 39us/step - loss: 80830.4531 - acc: 0.0000e+00 -

Epoch 208/5000  
103/103 [=====] - 0s 39us/step - loss: 80277.5156 - acc: 0.0000e+00 -

Epoch 209/5000  
103/103 [=====] - 0s 39us/step - loss: 79719.1953 - acc: 0.0000e+00 -

Epoch 210/5000  
103/103 [=====] - 0s 49us/step - loss: 79156.9375 - acc: 0.0000e+00 -

Epoch 211/5000  
103/103 [=====] - 0s 49us/step - loss: 78588.4688 - acc: 0.0000e+00 -

Epoch 212/5000  
103/103 [=====] - 0s 49us/step - loss: 78015.1641 - acc: 0.0000e+00 -

Epoch 213/5000  
103/103 [=====] - 0s 39us/step - loss: 77437.1953 - acc: 0.0000e+00 -

Epoch 214/5000  
103/103 [=====] - 0s 39us/step - loss: 76855.5703 - acc: 0.0000e+00 -

Epoch 215/5000  
103/103 [=====] - 0s 49us/step - loss: 76269.3203 - acc: 0.0000e+00 -

Epoch 216/5000  
103/103 [=====] - 0s 29us/step - loss: 75678.0156 - acc: 0.0000e+00 -

Epoch 217/5000  
103/103 [=====] - 0s 39us/step - loss: 75081.7266 - acc: 0.0000e+00 -

Epoch 218/5000  
103/103 [=====] - 0s 29us/step - loss: 74480.2344 - acc: 0.0000e+00 -  
Epoch 219/5000  
103/103 [=====] - 0s 29us/step - loss: 73874.2344 - acc: 0.0000e+00 -  
Epoch 220/5000  
103/103 [=====] - 0s 39us/step - loss: 73262.5078 - acc: 0.0000e+00 -  
Epoch 221/5000  
103/103 [=====] - 0s 39us/step - loss: 72646.4062 - acc: 0.0000e+00 -  
Epoch 222/5000  
103/103 [=====] - 0s 39us/step - loss: 72027.1641 - acc: 0.0000e+00 -  
Epoch 223/5000  
103/103 [=====] - 0s 39us/step - loss: 71402.4453 - acc: 0.0000e+00 -  
Epoch 224/5000  
103/103 [=====] - 0s 39us/step - loss: 70773.6484 - acc: 0.0000e+00 -  
Epoch 225/5000  
103/103 [=====] - 0s 39us/step - loss: 70142.2188 - acc: 0.0000e+00 -  
Epoch 226/5000  
103/103 [=====] - 0s 39us/step - loss: 69505.7734 - acc: 0.0000e+00 -  
Epoch 227/5000  
103/103 [=====] - 0s 39us/step - loss: 68865.5859 - acc: 0.0000e+00 -  
Epoch 228/5000  
103/103 [=====] - 0s 49us/step - loss: 68221.7109 - acc: 0.0000e+00 -  
Epoch 229/5000  
103/103 [=====] - 0s 58us/step - loss: 67574.2656 - acc: 0.0000e+00 -  
Epoch 230/5000  
103/103 [=====] - 0s 49us/step - loss: 66923.0234 - acc: 0.0000e+00 -  
Epoch 231/5000  
103/103 [=====] - 0s 39us/step - loss: 66269.6719 - acc: 0.0000e+00 -  
Epoch 232/5000  
103/103 [=====] - 0s 39us/step - loss: 65613.1719 - acc: 0.0000e+00 -  
Epoch 233/5000  
103/103 [=====] - 0s 49us/step - loss: 64952.4922 - acc: 0.0000e+00 -  
Epoch 234/5000  
103/103 [=====] - 0s 49us/step - loss: 64290.1055 - acc: 0.0000e+00 -  
Epoch 235/5000  
103/103 [=====] - 0s 48us/step - loss: 63624.8672 - acc: 0.0000e+00 -  
Epoch 236/5000  
103/103 [=====] - 0s 39us/step - loss: 62955.6992 - acc: 0.0000e+00 -  
Epoch 237/5000  
103/103 [=====] - 0s 49us/step - loss: 62284.9922 - acc: 0.0000e+00 -  
Epoch 238/5000  
103/103 [=====] - 0s 39us/step - loss: 61610.3789 - acc: 0.0000e+00 -  
Epoch 239/5000  
103/103 [=====] - 0s 49us/step - loss: 60933.4961 - acc: 0.0000e+00 -  
Epoch 240/5000  
103/103 [=====] - 0s 29us/step - loss: 60255.5195 - acc: 0.0000e+00 -  
Epoch 241/5000  
103/103 [=====] - 0s 29us/step - loss: 59575.6172 - acc: 0.0000e+00 -



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Epoch 242/5000
103/103 [=====] - 0s 39us/step - loss: 58892.5156 - acc: 0.0000e+00 -
Epoch 243/5000
103/103 [=====] - 0s 39us/step - loss: 58208.9141 - acc: 0.0000e+00 -
Epoch 244/5000
103/103 [=====] - 0s 39us/step - loss: 57522.6953 - acc: 0.0000e+00 -
Epoch 245/5000
103/103 [=====] - 0s 39us/step - loss: 56836.4727 - acc: 0.0000e+00 -
Epoch 246/5000
103/103 [=====] - 0s 49us/step - loss: 56147.8477 - acc: 0.0000e+00 -
Epoch 247/5000
103/103 [=====] - 0s 29us/step - loss: 55458.3125 - acc: 0.0000e+00 -
Epoch 248/5000
103/103 [=====] - 0s 39us/step - loss: 54768.2188 - acc: 0.0000e+00 -
Epoch 249/5000
103/103 [=====] - 0s 39us/step - loss: 54078.9727 - acc: 0.0000e+00 -
Epoch 250/5000
103/103 [=====] - 0s 39us/step - loss: 53389.4180 - acc: 0.0000e+00 -
Epoch 251/5000
103/103 [=====] - 0s 29us/step - loss: 52699.5977 - acc: 0.0000e+00 -
Epoch 252/5000
103/103 [=====] - 0s 39us/step - loss: 52009.7031 - acc: 0.0000e+00 -
Epoch 253/5000
103/103 [=====] - 0s 29us/step - loss: 51318.6797 - acc: 0.0000e+00 -
Epoch 254/5000
103/103 [=====] - 0s 29us/step - loss: 50629.0352 - acc: 0.0000e+00 -
Epoch 255/5000
103/103 [=====] - 0s 39us/step - loss: 49940.1328 - acc: 0.0000e+00 -
Epoch 256/5000
103/103 [=====] - 0s 39us/step - loss: 49250.9414 - acc: 0.0000e+00 -
Epoch 257/5000
103/103 [=====] - 0s 39us/step - loss: 48562.8242 - acc: 0.0000e+00 -
Epoch 258/5000
103/103 [=====] - 0s 39us/step - loss: 47877.1953 - acc: 0.0000e+00 -
Epoch 259/5000
103/103 [=====] - 0s 39us/step - loss: 47191.9258 - acc: 0.0000e+00 -
Epoch 260/5000
103/103 [=====] - 0s 39us/step - loss: 46508.3867 - acc: 0.0097 - mean
Epoch 261/5000
103/103 [=====] - 0s 29us/step - loss: 45826.7539 - acc: 0.0000e+00 -
Epoch 262/5000
103/103 [=====] - 0s 39us/step - loss: 45147.1328 - acc: 0.0000e+00 -
Epoch 263/5000
103/103 [=====] - 0s 39us/step - loss: 44469.7422 - acc: 0.0000e+00 -
Epoch 264/5000
103/103 [=====] - 0s 29us/step - loss: 43795.9648 - acc: 0.0000e+00 -
Epoch 265/5000
103/103 [=====] - 0s 29us/step - loss: 43123.6875 - acc: 0.0000e+00 -

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Epoch 266/5000
103/103 [=====] - 0s 29us/step - loss: 42455.5078 - acc: 0.0000e+00 -
Epoch 267/5000
103/103 [=====] - 0s 29us/step - loss: 41789.5078 - acc: 0.0000e+00 -
Epoch 268/5000
103/103 [=====] - 0s 39us/step - loss: 41127.0352 - acc: 0.0000e+00 -
Epoch 269/5000
103/103 [=====] - 0s 39us/step - loss: 40469.2539 - acc: 0.0000e+00 -
Epoch 270/5000
103/103 [=====] - 0s 29us/step - loss: 39814.1758 - acc: 0.0000e+00 -
Epoch 271/5000
103/103 [=====] - 0s 19us/step - loss: 39163.1328 - acc: 0.0000e+00 -
Epoch 272/5000
103/103 [=====] - 0s 29us/step - loss: 38516.2695 - acc: 0.0000e+00 -
Epoch 273/5000
103/103 [=====] - 0s 29us/step - loss: 37874.8594 - acc: 0.0000e+00 -
Epoch 274/5000
103/103 [=====] - 0s 29us/step - loss: 37236.9180 - acc: 0.0000e+00 -
Epoch 275/5000
103/103 [=====] - 0s 29us/step - loss: 36603.7852 - acc: 0.0000e+00 -
Epoch 276/5000
103/103 [=====] - 0s 29us/step - loss: 35976.7227 - acc: 0.0097 - mean
Epoch 277/5000
103/103 [=====] - 0s 29us/step - loss: 35355.0273 - acc: 0.0000e+00 -
Epoch 278/5000
103/103 [=====] - 0s 29us/step - loss: 34738.9727 - acc: 0.0000e+00 -
Epoch 279/5000
103/103 [=====] - 0s 39us/step - loss: 34127.7148 - acc: 0.0000e+00 -
Epoch 280/5000
103/103 [=====] - 0s 39us/step - loss: 33522.5625 - acc: 0.0000e+00 -
Epoch 281/5000
103/103 [=====] - 0s 29us/step - loss: 32924.6055 - acc: 0.0000e+00 -
Epoch 282/5000
103/103 [=====] - 0s 29us/step - loss: 32333.1680 - acc: 0.0000e+00 -
Epoch 283/5000
103/103 [=====] - 0s 29us/step - loss: 31748.2109 - acc: 0.0000e+00 -
Epoch 284/5000
103/103 [=====] - 0s 29us/step - loss: 31170.0273 - acc: 0.0000e+00 -
Epoch 285/5000
103/103 [=====] - 0s 29us/step - loss: 30598.8574 - acc: 0.0000e+00 -
Epoch 286/5000
103/103 [=====] - 0s 29us/step - loss: 30034.8828 - acc: 0.0000e+00 -
Epoch 287/5000
103/103 [=====] - 0s 29us/step - loss: 29478.2891 - acc: 0.0000e+00 -
Epoch 288/5000
103/103 [=====] - 0s 39us/step - loss: 28928.4512 - acc: 0.0000e+00 -
Epoch 289/5000
103/103 [=====] - 0s 39us/step - loss: 28387.1094 - acc: 0.0000e+00 -

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Epoch 290/5000
103/103 [=====] - 0s 29us/step - loss: 27852.7578 - acc: 0.0000e+00 -
Epoch 291/5000
103/103 [=====] - 0s 29us/step - loss: 27327.1230 - acc: 0.0000e+00 -
Epoch 292/5000
103/103 [=====] - 0s 29us/step - loss: 26808.9688 - acc: 0.0000e+00 -
Epoch 293/5000
103/103 [=====] - 0s 39us/step - loss: 26298.8066 - acc: 0.0000e+00 -
Epoch 294/5000
103/103 [=====] - 0s 29us/step - loss: 25796.7812 - acc: 0.0000e+00 -
Epoch 295/5000
103/103 [=====] - 0s 39us/step - loss: 25302.3633 - acc: 0.0000e+00 -
Epoch 296/5000
103/103 [=====] - 0s 29us/step - loss: 24816.3535 - acc: 0.0000e+00 -
Epoch 297/5000
103/103 [=====] - 0s 39us/step - loss: 24338.9277 - acc: 0.0000e+00 -
Epoch 298/5000
103/103 [=====] - 0s 29us/step - loss: 23870.8086 - acc: 0.0000e+00 -
Epoch 299/5000
103/103 [=====] - 0s 39us/step - loss: 23411.4004 - acc: 0.0000e+00 -
Epoch 300/5000
103/103 [=====] - 0s 29us/step - loss: 22960.6309 - acc: 0.0000e+00 -
Epoch 301/5000
103/103 [=====] - 0s 29us/step - loss: 22518.5371 - acc: 0.0000e+00 -
Epoch 302/5000
103/103 [=====] - 0s 39us/step - loss: 22085.0117 - acc: 0.0000e+00 -
Epoch 303/5000
103/103 [=====] - 0s 29us/step - loss: 21660.2695 - acc: 0.0000e+00 -
Epoch 304/5000
103/103 [=====] - 0s 29us/step - loss: 21243.5977 - acc: 0.0000e+00 -
Epoch 305/5000
103/103 [=====] - 0s 39us/step - loss: 20835.8594 - acc: 0.0000e+00 -
Epoch 306/5000
103/103 [=====] - 0s 29us/step - loss: 20437.6211 - acc: 0.0000e+00 -
Epoch 307/5000
103/103 [=====] - 0s 39us/step - loss: 20048.3164 - acc: 0.0194 - mean
Epoch 308/5000
103/103 [=====] - 0s 29us/step - loss: 19667.8438 - acc: 0.0000e+00 -
Epoch 309/5000
103/103 [=====] - 0s 29us/step - loss: 19295.6621 - acc: 0.0000e+00 -
Epoch 310/5000
103/103 [=====] - 0s 29us/step - loss: 18932.6523 - acc: 0.0000e+00 -
Epoch 311/5000
103/103 [=====] - 0s 29us/step - loss: 18578.1562 - acc: 0.0000e+00 -
Epoch 312/5000
103/103 [=====] - 0s 39us/step - loss: 18231.8828 - acc: 0.0000e+00 -
Epoch 313/5000
103/103 [=====] - 0s 39us/step - loss: 17894.7383 - acc: 0.0000e+00 -

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Epoch 314/5000  
103/103 [=====] - 0s 39us/step - loss: 17566.1211 - acc: 0.0000e+00 -  
Epoch 315/5000  
103/103 [=====] - 0s 39us/step - loss: 17246.0586 - acc: 0.0097 - mean  
Epoch 316/5000  
103/103 [=====] - 0s 29us/step - loss: 16934.0625 - acc: 0.0097 - mean  
Epoch 317/5000  
103/103 [=====] - 0s 39us/step - loss: 16630.8184 - acc: 0.0000e+00 -  
Epoch 318/5000  
103/103 [=====] - 0s 29us/step - loss: 16335.8564 - acc: 0.0000e+00 -  
Epoch 319/5000  
103/103 [=====] - 0s 29us/step - loss: 16048.7363 - acc: 0.0000e+00 -  
Epoch 320/5000  
103/103 [=====] - 0s 29us/step - loss: 15770.1270 - acc: 0.0097 - mean  
Epoch 321/5000  
103/103 [=====] - 0s 39us/step - loss: 15499.1055 - acc: 0.0000e+00 -  
Epoch 322/5000  
103/103 [=====] - 0s 29us/step - loss: 15235.9854 - acc: 0.0000e+00 -  
Epoch 323/5000  
103/103 [=====] - 0s 29us/step - loss: 14980.9268 - acc: 0.0000e+00 -  
Epoch 324/5000  
103/103 [=====] - 0s 39us/step - loss: 14732.9053 - acc: 0.0000e+00 -  
Epoch 325/5000  
103/103 [=====] - 0s 29us/step - loss: 14492.6299 - acc: 0.0000e+00 -  
Epoch 326/5000  
103/103 [=====] - 0s 29us/step - loss: 14259.6416 - acc: 0.0194 - mean  
Epoch 327/5000  
103/103 [=====] - 0s 29us/step - loss: 14033.8945 - acc: 0.0000e+00 -  
Epoch 328/5000  
103/103 [=====] - 0s 39us/step - loss: 13815.2832 - acc: 0.0000e+00 -  
Epoch 329/5000  
103/103 [=====] - 0s 29us/step - loss: 13603.1494 - acc: 0.0000e+00 -  
Epoch 330/5000  
103/103 [=====] - 0s 29us/step - loss: 13398.0703 - acc: 0.0000e+00 -  
Epoch 331/5000  
103/103 [=====] - 0s 39us/step - loss: 13199.6719 - acc: 0.0097 - mean  
Epoch 332/5000  
103/103 [=====] - 0s 29us/step - loss: 13007.5742 - acc: 0.0000e+00 -  
Epoch 333/5000  
103/103 [=====] - 0s 29us/step - loss: 12822.1152 - acc: 0.0000e+00 -  
Epoch 334/5000  
103/103 [=====] - 0s 39us/step - loss: 12642.9014 - acc: 0.0000e+00 -  
Epoch 335/5000  
103/103 [=====] - 0s 48us/step - loss: 12469.7793 - acc: 0.0000e+00 -  
Epoch 336/5000  
103/103 [=====] - 0s 39us/step - loss: 12302.5918 - acc: 0.0194 - mean  
Epoch 337/5000  
103/103 [=====] - 0s 29us/step - loss: 12141.1865 - acc: 0.0000e+00 -

Epoch 338/5000  
103/103 [=====] - 0s 39us/step - loss: 11985.3838 - acc: 0.0000e+00 -  
Epoch 339/5000  
103/103 [=====] - 0s 39us/step - loss: 11834.9258 - acc: 0.0000e+00 -  
Epoch 340/5000  
103/103 [=====] - 0s 29us/step - loss: 11689.5889 - acc: 0.0000e+00 -  
Epoch 341/5000  
103/103 [=====] - 0s 39us/step - loss: 11549.5664 - acc: 0.0097 - mean  
Epoch 342/5000  
103/103 [=====] - 0s 39us/step - loss: 11414.5410 - acc: 0.0000e+00 -  
Epoch 343/5000  
103/103 [=====] - 0s 39us/step - loss: 11284.3496 - acc: 0.0000e+00 -  
Epoch 344/5000  
103/103 [=====] - 0s 29us/step - loss: 11158.6836 - acc: 0.0000e+00 -  
Epoch 345/5000  
103/103 [=====] - 0s 29us/step - loss: 11037.6797 - acc: 0.0097 - mean  
Epoch 346/5000  
103/103 [=====] - 0s 29us/step - loss: 10920.9053 - acc: 0.0000e+00 -  
Epoch 347/5000  
103/103 [=====] - 0s 29us/step - loss: 10808.4717 - acc: 0.0000e+00 -  
Epoch 348/5000  
103/103 [=====] - 0s 29us/step - loss: 10699.9736 - acc: 0.0000e+00 -  
Epoch 349/5000  
103/103 [=====] - 0s 29us/step - loss: 10595.2363 - acc: 0.0000e+00 -  
Epoch 350/5000  
103/103 [=====] - 0s 29us/step - loss: 10494.2656 - acc: 0.0000e+00 -  
Epoch 351/5000  
103/103 [=====] - 0s 39us/step - loss: 10397.0586 - acc: 0.0000e+00 -  
Epoch 352/5000  
103/103 [=====] - 0s 29us/step - loss: 10303.3467 - acc: 0.0097 - mean  
Epoch 353/5000  
103/103 [=====] - 0s 29us/step - loss: 10213.1357 - acc: 0.0194 - mean  
Epoch 354/5000  
103/103 [=====] - 0s 29us/step - loss: 10126.0527 - acc: 0.0097 - mean  
Epoch 355/5000  
103/103 [=====] - 0s 29us/step - loss: 10042.0635 - acc: 0.0194 - mean  
Epoch 356/5000  
103/103 [=====] - 0s 39us/step - loss: 9960.8145 - acc: 0.0194 - mean  
Epoch 357/5000  
103/103 [=====] - 0s 29us/step - loss: 9882.4932 - acc: 0.0097 - mean  
Epoch 358/5000  
103/103 [=====] - 0s 29us/step - loss: 9806.8789 - acc: 0.0000e+00 - r  
Epoch 359/5000  
103/103 [=====] - 0s 29us/step - loss: 9733.8633 - acc: 0.0000e+00 - r  
Epoch 360/5000  
103/103 [=====] - 0s 29us/step - loss: 9663.2510 - acc: 0.0000e+00 - r  
Epoch 361/5000  
103/103 [=====] - 0s 29us/step - loss: 9595.0234 - acc: 0.0097 - mean

Epoch 362/5000  
103/103 [=====] - 0s 39us/step - loss: 9529.1475 - acc: 0.0194 - mean  
Epoch 363/5000  
103/103 [=====] - 0s 39us/step - loss: 9465.3760 - acc: 0.0194 - mean  
Epoch 364/5000  
103/103 [=====] - 0s 39us/step - loss: 9403.6855 - acc: 0.0097 - mean  
Epoch 365/5000  
103/103 [=====] - 0s 29us/step - loss: 9343.9834 - acc: 0.0097 - mean  
Epoch 366/5000  
103/103 [=====] - 0s 29us/step - loss: 9286.2451 - acc: 0.0000e+00 - r  
Epoch 367/5000  
103/103 [=====] - 0s 29us/step - loss: 9230.2988 - acc: 0.0000e+00 - r  
Epoch 368/5000  
103/103 [=====] - 0s 39us/step - loss: 9176.1777 - acc: 0.0000e+00 - r  
Epoch 369/5000  
103/103 [=====] - 0s 39us/step - loss: 9123.7139 - acc: 0.0000e+00 - r  
Epoch 370/5000  
103/103 [=====] - 0s 29us/step - loss: 9072.8848 - acc: 0.0097 - mean  
Epoch 371/5000  
103/103 [=====] - 0s 39us/step - loss: 9023.5645 - acc: 0.0000e+00 - r  
Epoch 372/5000  
103/103 [=====] - 0s 39us/step - loss: 8975.6943 - acc: 0.0000e+00 - r  
Epoch 373/5000  
103/103 [=====] - 0s 29us/step - loss: 8929.2314 - acc: 0.0000e+00 - r  
Epoch 374/5000  
103/103 [=====] - 0s 29us/step - loss: 8884.0518 - acc: 0.0097 - mean  
Epoch 375/5000  
103/103 [=====] - 0s 39us/step - loss: 8840.1641 - acc: 0.0097 - mean  
Epoch 376/5000  
103/103 [=====] - 0s 29us/step - loss: 8797.3809 - acc: 0.0194 - mean  
Epoch 377/5000  
103/103 [=====] - 0s 39us/step - loss: 8755.6426 - acc: 0.0097 - mean  
Epoch 378/5000  
103/103 [=====] - 0s 29us/step - loss: 8715.0293 - acc: 0.0194 - mean  
Epoch 379/5000  
103/103 [=====] - 0s 29us/step - loss: 8675.4307 - acc: 0.0097 - mean  
Epoch 380/5000  
103/103 [=====] - 0s 39us/step - loss: 8636.7578 - acc: 0.0097 - mean  
Epoch 381/5000  
103/103 [=====] - 0s 29us/step - loss: 8599.0059 - acc: 0.0097 - mean  
Epoch 382/5000  
103/103 [=====] - 0s 29us/step - loss: 8562.1533 - acc: 0.0000e+00 - r  
Epoch 383/5000  
103/103 [=====] - 0s 39us/step - loss: 8526.3760 - acc: 0.0000e+00 - r  
Epoch 384/5000  
103/103 [=====] - 0s 29us/step - loss: 8491.4150 - acc: 0.0000e+00 - r  
Epoch 385/5000  
103/103 [=====] - 0s 29us/step - loss: 8457.1963 - acc: 0.0000e+00 - r

Epoch 386/5000  
103/103 [=====] - 0s 29us/step - loss: 8423.7568 - acc: 0.0000e+00 - r  
Epoch 387/5000  
103/103 [=====] - 0s 29us/step - loss: 8391.0010 - acc: 0.0000e+00 - r  
Epoch 388/5000  
103/103 [=====] - 0s 29us/step - loss: 8359.0215 - acc: 0.0000e+00 - r  
Epoch 389/5000  
103/103 [=====] - 0s 39us/step - loss: 8327.6914 - acc: 0.0000e+00 - r  
Epoch 390/5000  
103/103 [=====] - 0s 29us/step - loss: 8297.0645 - acc: 0.0097 - mean  
Epoch 391/5000  
103/103 [=====] - 0s 29us/step - loss: 8267.0742 - acc: 0.0097 - mean  
Epoch 392/5000  
103/103 [=====] - 0s 29us/step - loss: 8237.6543 - acc: 0.0097 - mean  
Epoch 393/5000  
103/103 [=====] - 0s 29us/step - loss: 8208.8184 - acc: 0.0000e+00 - r  
Epoch 394/5000  
103/103 [=====] - 0s 39us/step - loss: 8180.5430 - acc: 0.0000e+00 - r  
Epoch 395/5000  
103/103 [=====] - 0s 29us/step - loss: 8152.7749 - acc: 0.0000e+00 - r  
Epoch 396/5000  
103/103 [=====] - 0s 39us/step - loss: 8125.4922 - acc: 0.0000e+00 - r  
Epoch 397/5000  
103/103 [=====] - 0s 39us/step - loss: 8098.6494 - acc: 0.0000e+00 - r  
Epoch 398/5000  
103/103 [=====] - 0s 29us/step - loss: 8072.2554 - acc: 0.0000e+00 - r  
Epoch 399/5000  
103/103 [=====] - 0s 29us/step - loss: 8046.3193 - acc: 0.0000e+00 - r  
Epoch 400/5000  
103/103 [=====] - 0s 39us/step - loss: 8020.7969 - acc: 0.0000e+00 - r  
Epoch 401/5000  
103/103 [=====] - 0s 29us/step - loss: 7995.6470 - acc: 0.0000e+00 - r  
Epoch 402/5000  
103/103 [=====] - 0s 29us/step - loss: 7970.9351 - acc: 0.0000e+00 - r  
Epoch 403/5000  
103/103 [=====] - 0s 39us/step - loss: 7946.5972 - acc: 0.0000e+00 - r  
Epoch 404/5000  
103/103 [=====] - 0s 39us/step - loss: 7922.6128 - acc: 0.0000e+00 - r  
Epoch 405/5000  
103/103 [=====] - 0s 29us/step - loss: 7898.8901 - acc: 0.0000e+00 - r  
Epoch 406/5000  
103/103 [=====] - 0s 29us/step - loss: 7875.4917 - acc: 0.0000e+00 - r  
Epoch 407/5000  
103/103 [=====] - 0s 39us/step - loss: 7852.3672 - acc: 0.0000e+00 - r  
Epoch 408/5000  
103/103 [=====] - 0s 29us/step - loss: 7829.5557 - acc: 0.0000e+00 - r  
Epoch 409/5000  
103/103 [=====] - 0s 39us/step - loss: 7807.0273 - acc: 0.0000e+00 - r

Epoch 410/5000  
103/103 [=====] - 0s 29us/step - loss: 7784.7725 - acc: 0.0000e+00 - r  
Epoch 411/5000  
103/103 [=====] - 0s 39us/step - loss: 7762.7808 - acc: 0.0097 - mean  
Epoch 412/5000  
103/103 [=====] - 0s 19us/step - loss: 7741.0283 - acc: 0.0097 - mean  
Epoch 413/5000  
103/103 [=====] - 0s 29us/step - loss: 7719.5396 - acc: 0.0097 - mean  
Epoch 414/5000  
103/103 [=====] - 0s 29us/step - loss: 7698.2954 - acc: 0.0097 - mean  
Epoch 415/5000  
103/103 [=====] - 0s 39us/step - loss: 7677.2954 - acc: 0.0097 - mean  
Epoch 416/5000  
103/103 [=====] - 0s 29us/step - loss: 7656.5142 - acc: 0.0000e+00 - r  
Epoch 417/5000  
103/103 [=====] - 0s 29us/step - loss: 7635.9648 - acc: 0.0000e+00 - r  
Epoch 418/5000  
103/103 [=====] - 0s 29us/step - loss: 7615.6406 - acc: 0.0097 - mean  
Epoch 419/5000  
103/103 [=====] - 0s 29us/step - loss: 7595.5728 - acc: 0.0097 - mean  
Epoch 420/5000  
103/103 [=====] - 0s 29us/step - loss: 7575.7207 - acc: 0.0097 - mean  
Epoch 421/5000  
103/103 [=====] - 0s 29us/step - loss: 7556.0669 - acc: 0.0097 - mean  
Epoch 422/5000  
103/103 [=====] - 0s 29us/step - loss: 7536.6172 - acc: 0.0097 - mean  
Epoch 423/5000  
103/103 [=====] - 0s 39us/step - loss: 7517.3623 - acc: 0.0097 - mean  
Epoch 424/5000  
103/103 [=====] - 0s 29us/step - loss: 7498.2979 - acc: 0.0097 - mean  
Epoch 425/5000  
103/103 [=====] - 0s 29us/step - loss: 7479.4194 - acc: 0.0000e+00 - r  
Epoch 426/5000  
103/103 [=====] - 0s 19us/step - loss: 7460.7231 - acc: 0.0000e+00 - r  
Epoch 427/5000  
103/103 [=====] - 0s 29us/step - loss: 7442.2046 - acc: 0.0097 - mean  
Epoch 428/5000  
103/103 [=====] - 0s 29us/step - loss: 7423.8330 - acc: 0.0097 - mean  
Epoch 429/5000  
103/103 [=====] - 0s 29us/step - loss: 7405.6143 - acc: 0.0097 - mean  
Epoch 430/5000  
103/103 [=====] - 0s 39us/step - loss: 7387.5752 - acc: 0.0097 - mean  
Epoch 431/5000  
103/103 [=====] - 0s 29us/step - loss: 7369.6948 - acc: 0.0097 - mean  
Epoch 432/5000  
103/103 [=====] - 0s 29us/step - loss: 7351.9541 - acc: 0.0097 - mean  
Epoch 433/5000  
103/103 [=====] - 0s 39us/step - loss: 7334.3867 - acc: 0.0097 - mean



Epoch 434/5000  
103/103 [=====] - 0s 29us/step - loss: 7316.9868 - acc: 0.0097 - mean,  
Epoch 435/5000  
103/103 [=====] - 0s 39us/step - loss: 7299.7349 - acc: 0.0097 - mean,  
Epoch 436/5000  
103/103 [=====] - 0s 29us/step - loss: 7282.6128 - acc: 0.0097 - mean,  
Epoch 437/5000  
103/103 [=====] - 0s 29us/step - loss: 7265.6328 - acc: 0.0097 - mean,  
Epoch 438/5000  
103/103 [=====] - 0s 39us/step - loss: 7248.8057 - acc: 0.0000e+00 - r  
Epoch 439/5000  
103/103 [=====] - 0s 39us/step - loss: 7232.0806 - acc: 0.0000e+00 - r  
Epoch 440/5000  
103/103 [=====] - 0s 29us/step - loss: 7215.5034 - acc: 0.0000e+00 - r  
Epoch 441/5000  
103/103 [=====] - 0s 39us/step - loss: 7199.0522 - acc: 0.0000e+00 - r  
Epoch 442/5000  
103/103 [=====] - 0s 29us/step - loss: 7182.7217 - acc: 0.0000e+00 - r  
Epoch 443/5000  
103/103 [=====] - 0s 29us/step - loss: 7166.5342 - acc: 0.0000e+00 - r  
Epoch 444/5000  
103/103 [=====] - 0s 29us/step - loss: 7150.4683 - acc: 0.0000e+00 - r  
Epoch 445/5000  
103/103 [=====] - 0s 29us/step - loss: 7134.5078 - acc: 0.0000e+00 - r  
Epoch 446/5000  
103/103 [=====] - 0s 29us/step - loss: 7118.6655 - acc: 0.0000e+00 - r  
Epoch 447/5000  
103/103 [=====] - 0s 39us/step - loss: 7102.9526 - acc: 0.0000e+00 - r  
Epoch 448/5000  
103/103 [=====] - 0s 29us/step - loss: 7087.3516 - acc: 0.0000e+00 - r  
Epoch 449/5000  
103/103 [=====] - 0s 29us/step - loss: 7071.8608 - acc: 0.0000e+00 - r  
Epoch 450/5000  
103/103 [=====] - 0s 39us/step - loss: 7056.4780 - acc: 0.0000e+00 - r  
Epoch 451/5000  
103/103 [=====] - 0s 39us/step - loss: 7041.2026 - acc: 0.0000e+00 - r  
Epoch 452/5000  
103/103 [=====] - 0s 29us/step - loss: 7026.0171 - acc: 0.0097 - mean,  
Epoch 453/5000  
103/103 [=====] - 0s 39us/step - loss: 7010.9473 - acc: 0.0097 - mean,  
Epoch 454/5000  
103/103 [=====] - 0s 29us/step - loss: 6995.9619 - acc: 0.0097 - mean,  
Epoch 455/5000  
103/103 [=====] - 0s 39us/step - loss: 6981.0747 - acc: 0.0097 - mean,  
Epoch 456/5000  
103/103 [=====] - 0s 29us/step - loss: 6966.2769 - acc: 0.0097 - mean,  
Epoch 457/5000  
103/103 [=====] - 0s 29us/step - loss: 6951.5703 - acc: 0.0097 - mean,

Epoch 458/5000  
103/103 [=====] - 0s 29us/step - loss: 6937.0093 - acc: 0.0097 - mean.  
Epoch 459/5000  
103/103 [=====] - 0s 29us/step - loss: 6922.5322 - acc: 0.0097 - mean.  
Epoch 460/5000  
103/103 [=====] - 0s 29us/step - loss: 6908.1450 - acc: 0.0097 - mean.  
Epoch 461/5000  
103/103 [=====] - 0s 39us/step - loss: 6893.8228 - acc: 0.0097 - mean.  
Epoch 462/5000  
103/103 [=====] - 0s 29us/step - loss: 6879.5669 - acc: 0.0097 - mean.  
Epoch 463/5000  
103/103 [=====] - 0s 39us/step - loss: 6865.3784 - acc: 0.0097 - mean.  
Epoch 464/5000  
103/103 [=====] - 0s 39us/step - loss: 6851.2568 - acc: 0.0097 - mean.  
Epoch 465/5000  
103/103 [=====] - 0s 29us/step - loss: 6837.1870 - acc: 0.0194 - mean.  
Epoch 466/5000  
103/103 [=====] - 0s 39us/step - loss: 6823.1826 - acc: 0.0097 - mean.  
Epoch 467/5000  
103/103 [=====] - 0s 29us/step - loss: 6809.2427 - acc: 0.0097 - mean.  
Epoch 468/5000  
103/103 [=====] - 0s 29us/step - loss: 6795.3647 - acc: 0.0097 - mean.  
Epoch 469/5000  
103/103 [=====] - 0s 29us/step - loss: 6781.5400 - acc: 0.0097 - mean.  
Epoch 470/5000  
103/103 [=====] - 0s 39us/step - loss: 6767.8320 - acc: 0.0097 - mean.  
Epoch 471/5000  
103/103 [=====] - 0s 29us/step - loss: 6754.2153 - acc: 0.0097 - mean.  
Epoch 472/5000  
103/103 [=====] - 0s 29us/step - loss: 6740.6582 - acc: 0.0097 - mean.  
Epoch 473/5000  
103/103 [=====] - 0s 29us/step - loss: 6727.1709 - acc: 0.0097 - mean.  
Epoch 474/5000  
103/103 [=====] - 0s 29us/step - loss: 6713.7305 - acc: 0.0097 - mean.  
Epoch 475/5000  
103/103 [=====] - 0s 29us/step - loss: 6700.3477 - acc: 0.0097 - mean.  
Epoch 476/5000  
103/103 [=====] - 0s 39us/step - loss: 6687.0190 - acc: 0.0097 - mean.  
Epoch 477/5000  
103/103 [=====] - 0s 39us/step - loss: 6673.7559 - acc: 0.0097 - mean.  
Epoch 478/5000  
103/103 [=====] - 0s 39us/step - loss: 6660.5352 - acc: 0.0097 - mean.  
Epoch 479/5000  
103/103 [=====] - 0s 39us/step - loss: 6647.3804 - acc: 0.0097 - mean.  
Epoch 480/5000  
103/103 [=====] - 0s 19us/step - loss: 6634.2656 - acc: 0.0097 - mean.  
Epoch 481/5000  
103/103 [=====] - 0s 29us/step - loss: 6621.2119 - acc: 0.0000e+00 - r

Epoch 482/5000  
103/103 [=====] - 0s 19us/step - loss: 6608.1973 - acc: 0.0000e+00 - r  
Epoch 483/5000  
103/103 [=====] - 0s 29us/step - loss: 6595.2295 - acc: 0.0000e+00 - r  
Epoch 484/5000  
103/103 [=====] - 0s 39us/step - loss: 6582.3101 - acc: 0.0000e+00 - r  
Epoch 485/5000  
103/103 [=====] - 0s 39us/step - loss: 6569.4473 - acc: 0.0000e+00 - r  
Epoch 486/5000  
103/103 [=====] - 0s 29us/step - loss: 6556.6299 - acc: 0.0000e+00 - r  
Epoch 487/5000  
103/103 [=====] - 0s 29us/step - loss: 6543.8594 - acc: 0.0097 - mean  
Epoch 488/5000  
103/103 [=====] - 0s 39us/step - loss: 6531.1226 - acc: 0.0194 - mean  
Epoch 489/5000  
103/103 [=====] - 0s 29us/step - loss: 6518.4268 - acc: 0.0194 - mean  
Epoch 490/5000  
103/103 [=====] - 0s 39us/step - loss: 6505.7759 - acc: 0.0194 - mean  
Epoch 491/5000  
103/103 [=====] - 0s 29us/step - loss: 6493.1650 - acc: 0.0194 - mean  
Epoch 492/5000  
103/103 [=====] - 0s 39us/step - loss: 6480.5859 - acc: 0.0194 - mean  
Epoch 493/5000  
103/103 [=====] - 0s 29us/step - loss: 6468.0430 - acc: 0.0000e+00 - r  
Epoch 494/5000  
103/103 [=====] - 0s 49us/step - loss: 6455.5366 - acc: 0.0000e+00 - r  
Epoch 495/5000  
103/103 [=====] - 0s 29us/step - loss: 6443.0991 - acc: 0.0000e+00 - r  
Epoch 496/5000  
103/103 [=====] - 0s 39us/step - loss: 6430.6792 - acc: 0.0000e+00 - r  
Epoch 497/5000  
103/103 [=====] - 0s 29us/step - loss: 6418.2915 - acc: 0.0000e+00 - r  
Epoch 498/5000  
103/103 [=====] - 0s 29us/step - loss: 6405.9297 - acc: 0.0000e+00 - r  
Epoch 499/5000  
103/103 [=====] - 0s 29us/step - loss: 6393.5977 - acc: 0.0000e+00 - r  
Epoch 500/5000  
103/103 [=====] - 0s 39us/step - loss: 6381.3071 - acc: 0.0000e+00 - r  
Epoch 501/5000  
103/103 [=====] - 0s 29us/step - loss: 6369.0366 - acc: 0.0000e+00 - r  
Epoch 502/5000  
103/103 [=====] - 0s 39us/step - loss: 6356.7949 - acc: 0.0000e+00 - r  
Epoch 503/5000  
103/103 [=====] - 0s 39us/step - loss: 6344.5918 - acc: 0.0000e+00 - r  
Epoch 504/5000  
103/103 [=====] - 0s 29us/step - loss: 6332.3901 - acc: 0.0097 - mean  
Epoch 505/5000  
103/103 [=====] - 0s 39us/step - loss: 6320.2104 - acc: 0.0097 - mean

Epoch 506/5000  
103/103 [=====] - 0s 39us/step - loss: 6308.0566 - acc: 0.0097 - mean.  
Epoch 507/5000  
103/103 [=====] - 0s 29us/step - loss: 6295.9243 - acc: 0.0194 - mean.  
Epoch 508/5000  
103/103 [=====] - 0s 29us/step - loss: 6283.8115 - acc: 0.0097 - mean.  
Epoch 509/5000  
103/103 [=====] - 0s 39us/step - loss: 6271.4331 - acc: 0.0097 - mean.  
Epoch 510/5000  
103/103 [=====] - 0s 29us/step - loss: 6258.8760 - acc: 0.0097 - mean.  
Epoch 511/5000  
103/103 [=====] - 0s 29us/step - loss: 6246.2446 - acc: 0.0194 - mean.  
Epoch 512/5000  
103/103 [=====] - 0s 39us/step - loss: 6233.5601 - acc: 0.0291 - mean.  
Epoch 513/5000  
103/103 [=====] - 0s 29us/step - loss: 6220.8218 - acc: 0.0291 - mean.  
Epoch 514/5000  
103/103 [=====] - 0s 29us/step - loss: 6208.0405 - acc: 0.0291 - mean.  
Epoch 515/5000  
103/103 [=====] - 0s 29us/step - loss: 6195.2217 - acc: 0.0194 - mean.  
Epoch 516/5000  
103/103 [=====] - 0s 39us/step - loss: 6182.2529 - acc: 0.0194 - mean.  
Epoch 517/5000  
103/103 [=====] - 0s 39us/step - loss: 6169.1875 - acc: 0.0194 - mean.  
Epoch 518/5000  
103/103 [=====] - 0s 29us/step - loss: 6156.0396 - acc: 0.0194 - mean.  
Epoch 519/5000  
103/103 [=====] - 0s 29us/step - loss: 6142.8320 - acc: 0.0194 - mean.  
Epoch 520/5000  
103/103 [=====] - 0s 39us/step - loss: 6129.5654 - acc: 0.0194 - mean.  
Epoch 521/5000  
103/103 [=====] - 0s 29us/step - loss: 6116.2656 - acc: 0.0097 - mean.  
Epoch 522/5000  
103/103 [=====] - 0s 29us/step - loss: 6102.9502 - acc: 0.0097 - mean.  
Epoch 523/5000  
103/103 [=====] - 0s 39us/step - loss: 6089.5874 - acc: 0.0097 - mean.  
Epoch 524/5000  
103/103 [=====] - 0s 29us/step - loss: 6076.1978 - acc: 0.0097 - mean.  
Epoch 525/5000  
103/103 [=====] - 0s 29us/step - loss: 6062.7783 - acc: 0.0097 - mean.  
Epoch 526/5000  
103/103 [=====] - 0s 29us/step - loss: 6049.3501 - acc: 0.0097 - mean.  
Epoch 527/5000  
103/103 [=====] - 0s 29us/step - loss: 6035.8950 - acc: 0.0097 - mean.  
Epoch 528/5000  
103/103 [=====] - 0s 39us/step - loss: 6022.4185 - acc: 0.0194 - mean.  
Epoch 529/5000  
103/103 [=====] - 0s 19us/step - loss: 6008.9429 - acc: 0.0194 - mean.

Epoch 530/5000  
103/103 [=====] - 0s 29us/step - loss: 5995.4585 - acc: 0.0194 - mean.  
Epoch 531/5000  
103/103 [=====] - 0s 29us/step - loss: 5981.9595 - acc: 0.0194 - mean.  
Epoch 532/5000  
103/103 [=====] - 0s 39us/step - loss: 5968.4570 - acc: 0.0194 - mean.  
Epoch 533/5000  
103/103 [=====] - 0s 29us/step - loss: 5954.9521 - acc: 0.0194 - mean.  
Epoch 534/5000  
103/103 [=====] - 0s 19us/step - loss: 5941.4482 - acc: 0.0194 - mean.  
Epoch 535/5000  
103/103 [=====] - 0s 29us/step - loss: 5927.9365 - acc: 0.0194 - mean.  
Epoch 536/5000  
103/103 [=====] - 0s 29us/step - loss: 5914.4146 - acc: 0.0097 - mean.  
Epoch 537/5000  
103/103 [=====] - 0s 29us/step - loss: 5900.8960 - acc: 0.0097 - mean.  
Epoch 538/5000  
103/103 [=====] - 0s 29us/step - loss: 5887.3804 - acc: 0.0097 - mean.  
Epoch 539/5000  
103/103 [=====] - 0s 29us/step - loss: 5873.8506 - acc: 0.0097 - mean.  
Epoch 540/5000  
103/103 [=====] - 0s 29us/step - loss: 5860.3706 - acc: 0.0097 - mean.  
Epoch 541/5000  
103/103 [=====] - 0s 29us/step - loss: 5846.8999 - acc: 0.0097 - mean.  
Epoch 542/5000  
103/103 [=====] - 0s 29us/step - loss: 5833.4297 - acc: 0.0097 - mean.  
Epoch 543/5000  
103/103 [=====] - 0s 39us/step - loss: 5819.9751 - acc: 0.0097 - mean.  
Epoch 544/5000  
103/103 [=====] - 0s 29us/step - loss: 5806.5195 - acc: 0.0097 - mean.  
Epoch 545/5000  
103/103 [=====] - 0s 39us/step - loss: 5793.0723 - acc: 0.0097 - mean.  
Epoch 546/5000  
103/103 [=====] - 0s 29us/step - loss: 5779.6333 - acc: 0.0097 - mean.  
Epoch 547/5000  
103/103 [=====] - 0s 39us/step - loss: 5766.2041 - acc: 0.0194 - mean.  
Epoch 548/5000  
103/103 [=====] - 0s 29us/step - loss: 5752.7920 - acc: 0.0194 - mean.  
Epoch 549/5000  
103/103 [=====] - 0s 29us/step - loss: 5739.3774 - acc: 0.0194 - mean.  
Epoch 550/5000  
103/103 [=====] - 0s 29us/step - loss: 5725.9683 - acc: 0.0194 - mean.  
Epoch 551/5000  
103/103 [=====] - 0s 29us/step - loss: 5712.5557 - acc: 0.0194 - mean.  
Epoch 552/5000  
103/103 [=====] - 0s 39us/step - loss: 5699.1597 - acc: 0.0194 - mean.  
Epoch 553/5000  
103/103 [=====] - 0s 29us/step - loss: 5685.7627 - acc: 0.0194 - mean.

Epoch 554/5000  
103/103 [=====] - 0s 39us/step - loss: 5672.3828 - acc: 0.0194 - mean.  
Epoch 555/5000  
103/103 [=====] - 0s 39us/step - loss: 5659.0122 - acc: 0.0194 - mean.  
Epoch 556/5000  
103/103 [=====] - 0s 39us/step - loss: 5645.6519 - acc: 0.0194 - mean.  
Epoch 557/5000  
103/103 [=====] - 0s 39us/step - loss: 5632.3003 - acc: 0.0097 - mean.  
Epoch 558/5000  
103/103 [=====] - 0s 39us/step - loss: 5618.9575 - acc: 0.0097 - mean.  
Epoch 559/5000  
103/103 [=====] - 0s 29us/step - loss: 5605.6143 - acc: 0.0097 - mean.  
Epoch 560/5000  
103/103 [=====] - 0s 29us/step - loss: 5592.3130 - acc: 0.0097 - mean.  
Epoch 561/5000  
103/103 [=====] - 0s 39us/step - loss: 5579.0435 - acc: 0.0194 - mean.  
Epoch 562/5000  
103/103 [=====] - 0s 29us/step - loss: 5565.7769 - acc: 0.0194 - mean.  
Epoch 563/5000  
103/103 [=====] - 0s 29us/step - loss: 5552.5220 - acc: 0.0194 - mean.  
Epoch 564/5000  
103/103 [=====] - 0s 39us/step - loss: 5539.2793 - acc: 0.0194 - mean.  
Epoch 565/5000  
103/103 [=====] - 0s 29us/step - loss: 5526.0483 - acc: 0.0194 - mean.  
Epoch 566/5000  
103/103 [=====] - 0s 29us/step - loss: 5512.8320 - acc: 0.0291 - mean.  
Epoch 567/5000  
103/103 [=====] - 0s 29us/step - loss: 5499.6421 - acc: 0.0194 - mean.  
Epoch 568/5000  
103/103 [=====] - 0s 39us/step - loss: 5486.4717 - acc: 0.0194 - mean.  
Epoch 569/5000  
103/103 [=====] - 0s 39us/step - loss: 5473.3169 - acc: 0.0194 - mean.  
Epoch 570/5000  
103/103 [=====] - 0s 29us/step - loss: 5460.2446 - acc: 0.0194 - mean.  
Epoch 571/5000  
103/103 [=====] - 0s 39us/step - loss: 5447.2231 - acc: 0.0194 - mean.  
Epoch 572/5000  
103/103 [=====] - 0s 39us/step - loss: 5434.2046 - acc: 0.0194 - mean.  
Epoch 573/5000  
103/103 [=====] - 0s 29us/step - loss: 5421.1978 - acc: 0.0194 - mean.  
Epoch 574/5000  
103/103 [=====] - 0s 29us/step - loss: 5408.2173 - acc: 0.0194 - mean.  
Epoch 575/5000  
103/103 [=====] - 0s 29us/step - loss: 5395.2446 - acc: 0.0194 - mean.  
Epoch 576/5000  
103/103 [=====] - 0s 29us/step - loss: 5382.2949 - acc: 0.0194 - mean.  
Epoch 577/5000  
103/103 [=====] - 0s 29us/step - loss: 5369.3623 - acc: 0.0194 - mean.

Epoch 578/5000  
103/103 [=====] - 0s 39us/step - loss: 5356.4707 - acc: 0.0194 - mean.  
Epoch 579/5000  
103/103 [=====] - 0s 39us/step - loss: 5343.5957 - acc: 0.0194 - mean.  
Epoch 580/5000  
103/103 [=====] - 0s 39us/step - loss: 5330.7407 - acc: 0.0194 - mean.  
Epoch 581/5000  
103/103 [=====] - 0s 29us/step - loss: 5317.9595 - acc: 0.0194 - mean.  
Epoch 582/5000  
103/103 [=====] - 0s 29us/step - loss: 5305.2178 - acc: 0.0291 - mean.  
Epoch 583/5000  
103/103 [=====] - 0s 39us/step - loss: 5292.4893 - acc: 0.0291 - mean.  
Epoch 584/5000  
103/103 [=====] - 0s 29us/step - loss: 5279.7935 - acc: 0.0291 - mean.  
Epoch 585/5000  
103/103 [=====] - 0s 29us/step - loss: 5267.1226 - acc: 0.0291 - mean.  
Epoch 586/5000  
103/103 [=====] - 0s 39us/step - loss: 5254.4653 - acc: 0.0291 - mean.  
Epoch 587/5000  
103/103 [=====] - 0s 29us/step - loss: 5241.8291 - acc: 0.0291 - mean.  
Epoch 588/5000  
103/103 [=====] - 0s 29us/step - loss: 5229.2231 - acc: 0.0291 - mean.  
Epoch 589/5000  
103/103 [=====] - 0s 39us/step - loss: 5216.6328 - acc: 0.0291 - mean.  
Epoch 590/5000  
103/103 [=====] - 0s 29us/step - loss: 5204.0605 - acc: 0.0291 - mean.  
Epoch 591/5000  
103/103 [=====] - 0s 19us/step - loss: 5191.5117 - acc: 0.0194 - mean.  
Epoch 592/5000  
103/103 [=====] - 0s 29us/step - loss: 5178.9780 - acc: 0.0194 - mean.  
Epoch 593/5000  
103/103 [=====] - 0s 29us/step - loss: 5166.4717 - acc: 0.0194 - mean.  
Epoch 594/5000  
103/103 [=====] - 0s 29us/step - loss: 5153.9868 - acc: 0.0194 - mean.  
Epoch 595/5000  
103/103 [=====] - 0s 29us/step - loss: 5141.5244 - acc: 0.0194 - mean.  
Epoch 596/5000  
103/103 [=====] - 0s 29us/step - loss: 5129.0977 - acc: 0.0194 - mean.  
Epoch 597/5000  
103/103 [=====] - 0s 29us/step - loss: 5116.7417 - acc: 0.0194 - mean.  
Epoch 598/5000  
103/103 [=====] - 0s 29us/step - loss: 5104.4619 - acc: 0.0194 - mean.  
Epoch 599/5000  
103/103 [=====] - 0s 39us/step - loss: 5092.2158 - acc: 0.0194 - mean.  
Epoch 600/5000  
103/103 [=====] - 0s 29us/step - loss: 5079.9956 - acc: 0.0097 - mean.  
Epoch 601/5000  
103/103 [=====] - 0s 29us/step - loss: 5067.7983 - acc: 0.0097 - mean.

Epoch 602/5000  
103/103 [=====] - 0s 39us/step - loss: 5055.6362 - acc: 0.0097 - mean.  
Epoch 603/5000  
103/103 [=====] - 0s 29us/step - loss: 5043.4888 - acc: 0.0097 - mean.  
Epoch 604/5000  
103/103 [=====] - 0s 29us/step - loss: 5031.3652 - acc: 0.0097 - mean.  
Epoch 605/5000  
103/103 [=====] - 0s 29us/step - loss: 5019.2744 - acc: 0.0097 - mean.  
Epoch 606/5000  
103/103 [=====] - 0s 39us/step - loss: 5007.2061 - acc: 0.0097 - mean.  
Epoch 607/5000  
103/103 [=====] - 0s 39us/step - loss: 4995.1621 - acc: 0.0097 - mean.  
Epoch 608/5000  
103/103 [=====] - 0s 29us/step - loss: 4983.1431 - acc: 0.0097 - mean.  
Epoch 609/5000  
103/103 [=====] - 0s 39us/step - loss: 4971.1455 - acc: 0.0097 - mean.  
Epoch 610/5000  
103/103 [=====] - 0s 49us/step - loss: 4959.1753 - acc: 0.0097 - mean.  
Epoch 611/5000  
103/103 [=====] - 0s 29us/step - loss: 4947.2266 - acc: 0.0097 - mean.  
Epoch 612/5000  
103/103 [=====] - 0s 39us/step - loss: 4935.2031 - acc: 0.0097 - mean.  
Epoch 613/5000  
103/103 [=====] - 0s 39us/step - loss: 4923.1836 - acc: 0.0097 - mean.  
Epoch 614/5000  
103/103 [=====] - 0s 29us/step - loss: 4911.1616 - acc: 0.0097 - mean.  
Epoch 615/5000  
103/103 [=====] - 0s 29us/step - loss: 4899.1328 - acc: 0.0097 - mean.  
Epoch 616/5000  
103/103 [=====] - 0s 39us/step - loss: 4887.1191 - acc: 0.0097 - mean.  
Epoch 617/5000  
103/103 [=====] - 0s 29us/step - loss: 4875.1162 - acc: 0.0097 - mean.  
Epoch 618/5000  
103/103 [=====] - 0s 29us/step - loss: 4863.1240 - acc: 0.0097 - mean.  
Epoch 619/5000  
103/103 [=====] - 0s 39us/step - loss: 4851.1362 - acc: 0.0097 - mean.  
Epoch 620/5000  
103/103 [=====] - 0s 29us/step - loss: 4839.1680 - acc: 0.0097 - mean.  
Epoch 621/5000  
103/103 [=====] - 0s 39us/step - loss: 4827.2197 - acc: 0.0097 - mean.  
Epoch 622/5000  
103/103 [=====] - 0s 29us/step - loss: 4815.2866 - acc: 0.0097 - mean.  
Epoch 623/5000  
103/103 [=====] - 0s 19us/step - loss: 4803.3867 - acc: 0.0097 - mean.  
Epoch 624/5000  
103/103 [=====] - 0s 29us/step - loss: 4791.5015 - acc: 0.0097 - mean.  
Epoch 625/5000  
103/103 [=====] - 0s 29us/step - loss: 4779.6372 - acc: 0.0097 - mean.



Epoch 626/5000  
103/103 [=====] - 0s 29us/step - loss: 4767.7852 - acc: 0.0097 - mean.  
Epoch 627/5000  
103/103 [=====] - 0s 29us/step - loss: 4755.9575 - acc: 0.0097 - mean.  
Epoch 628/5000  
103/103 [=====] - 0s 19us/step - loss: 4744.1421 - acc: 0.0097 - mean.  
Epoch 629/5000  
103/103 [=====] - 0s 29us/step - loss: 4732.3477 - acc: 0.0097 - mean.  
Epoch 630/5000  
103/103 [=====] - 0s 29us/step - loss: 4720.5732 - acc: 0.0097 - mean.  
Epoch 631/5000  
103/103 [=====] - 0s 29us/step - loss: 4708.8193 - acc: 0.0097 - mean.  
Epoch 632/5000  
103/103 [=====] - 0s 39us/step - loss: 4697.0864 - acc: 0.0097 - mean.  
Epoch 633/5000  
103/103 [=====] - 0s 39us/step - loss: 4685.3760 - acc: 0.0097 - mean.  
Epoch 634/5000  
103/103 [=====] - 0s 39us/step - loss: 4673.6982 - acc: 0.0097 - mean.  
Epoch 635/5000  
103/103 [=====] - 0s 39us/step - loss: 4662.0366 - acc: 0.0097 - mean.  
Epoch 636/5000  
103/103 [=====] - 0s 39us/step - loss: 4650.4092 - acc: 0.0097 - mean.  
Epoch 637/5000  
103/103 [=====] - 0s 29us/step - loss: 4638.8013 - acc: 0.0097 - mean.  
Epoch 638/5000  
103/103 [=====] - 0s 29us/step - loss: 4627.2197 - acc: 0.0097 - mean.  
Epoch 639/5000  
103/103 [=====] - 0s 29us/step - loss: 4615.6587 - acc: 0.0097 - mean.  
Epoch 640/5000  
103/103 [=====] - 0s 29us/step - loss: 4604.1333 - acc: 0.0097 - mean.  
Epoch 641/5000  
103/103 [=====] - 0s 49us/step - loss: 4592.6294 - acc: 0.0097 - mean.  
Epoch 642/5000  
103/103 [=====] - 0s 39us/step - loss: 4581.1479 - acc: 0.0097 - mean.  
Epoch 643/5000  
103/103 [=====] - 0s 39us/step - loss: 4569.6836 - acc: 0.0097 - mean.  
Epoch 644/5000  
103/103 [=====] - 0s 39us/step - loss: 4558.2422 - acc: 0.0097 - mean.  
Epoch 645/5000  
103/103 [=====] - 0s 29us/step - loss: 4546.8628 - acc: 0.0097 - mean.  
Epoch 646/5000  
103/103 [=====] - 0s 29us/step - loss: 4535.5508 - acc: 0.0097 - mean.  
Epoch 647/5000  
103/103 [=====] - 0s 19us/step - loss: 4524.2979 - acc: 0.0097 - mean.  
Epoch 648/5000  
103/103 [=====] - 0s 29us/step - loss: 4513.1245 - acc: 0.0097 - mean.  
Epoch 649/5000  
103/103 [=====] - 0s 29us/step - loss: 4501.9780 - acc: 0.0097 - mean.

Epoch 650/5000  
103/103 [=====] - 0s 29us/step - loss: 4490.9375 - acc: 0.0097 - mean.  
Epoch 651/5000  
103/103 [=====] - 0s 29us/step - loss: 4479.9219 - acc: 0.0097 - mean.  
Epoch 652/5000  
103/103 [=====] - 0s 29us/step - loss: 4468.9355 - acc: 0.0097 - mean.  
Epoch 653/5000  
103/103 [=====] - 0s 29us/step - loss: 4457.9883 - acc: 0.0097 - mean.  
Epoch 654/5000  
103/103 [=====] - 0s 29us/step - loss: 4447.0728 - acc: 0.0097 - mean.  
Epoch 655/5000  
103/103 [=====] - 0s 29us/step - loss: 4436.1909 - acc: 0.0097 - mean.  
Epoch 656/5000  
103/103 [=====] - 0s 39us/step - loss: 4425.3481 - acc: 0.0097 - mean.  
Epoch 657/5000  
103/103 [=====] - 0s 39us/step - loss: 4414.5493 - acc: 0.0097 - mean.  
Epoch 658/5000  
103/103 [=====] - 0s 39us/step - loss: 4403.7856 - acc: 0.0194 - mean.  
Epoch 659/5000  
103/103 [=====] - 0s 39us/step - loss: 4393.0469 - acc: 0.0194 - mean.  
Epoch 660/5000  
103/103 [=====] - 0s 29us/step - loss: 4382.3457 - acc: 0.0194 - mean.  
Epoch 661/5000  
103/103 [=====] - 0s 39us/step - loss: 4371.6968 - acc: 0.0194 - mean.  
Epoch 662/5000  
103/103 [=====] - 0s 29us/step - loss: 4361.0884 - acc: 0.0194 - mean.  
Epoch 663/5000  
103/103 [=====] - 0s 29us/step - loss: 4350.5122 - acc: 0.0194 - mean.  
Epoch 664/5000  
103/103 [=====] - 0s 39us/step - loss: 4339.9556 - acc: 0.0194 - mean.  
Epoch 665/5000  
103/103 [=====] - 0s 29us/step - loss: 4329.4351 - acc: 0.0194 - mean.  
Epoch 666/5000  
103/103 [=====] - 0s 29us/step - loss: 4318.9346 - acc: 0.0194 - mean.  
Epoch 667/5000  
103/103 [=====] - 0s 29us/step - loss: 4308.4678 - acc: 0.0194 - mean.  
Epoch 668/5000  
103/103 [=====] - 0s 29us/step - loss: 4298.0298 - acc: 0.0291 - mean.  
Epoch 669/5000  
103/103 [=====] - 0s 29us/step - loss: 4287.6260 - acc: 0.0291 - mean.  
Epoch 670/5000  
103/103 [=====] - 0s 29us/step - loss: 4277.2876 - acc: 0.0291 - mean.  
Epoch 671/5000  
103/103 [=====] - 0s 29us/step - loss: 4266.9829 - acc: 0.0291 - mean.  
Epoch 672/5000  
103/103 [=====] - 0s 29us/step - loss: 4256.7148 - acc: 0.0291 - mean.  
Epoch 673/5000  
103/103 [=====] - 0s 39us/step - loss: 4246.4878 - acc: 0.0291 - mean.

Epoch 674/5000  
103/103 [=====] - 0s 39us/step - loss: 4236.2876 - acc: 0.0291 - mean.  
Epoch 675/5000  
103/103 [=====] - 0s 29us/step - loss: 4226.1216 - acc: 0.0291 - mean.  
Epoch 676/5000  
103/103 [=====] - 0s 39us/step - loss: 4215.9839 - acc: 0.0194 - mean.  
Epoch 677/5000  
103/103 [=====] - 0s 29us/step - loss: 4205.8882 - acc: 0.0194 - mean.  
Epoch 678/5000  
103/103 [=====] - 0s 39us/step - loss: 4195.8408 - acc: 0.0291 - mean.  
Epoch 679/5000  
103/103 [=====] - 0s 29us/step - loss: 4185.8403 - acc: 0.0194 - mean.  
Epoch 680/5000  
103/103 [=====] - 0s 29us/step - loss: 4175.8745 - acc: 0.0194 - mean.  
Epoch 681/5000  
103/103 [=====] - 0s 39us/step - loss: 4165.9385 - acc: 0.0194 - mean.  
Epoch 682/5000  
103/103 [=====] - 0s 29us/step - loss: 4156.0493 - acc: 0.0194 - mean.  
Epoch 683/5000  
103/103 [=====] - 0s 39us/step - loss: 4146.1982 - acc: 0.0194 - mean.  
Epoch 684/5000  
103/103 [=====] - 0s 29us/step - loss: 4136.3833 - acc: 0.0194 - mean.  
Epoch 685/5000  
103/103 [=====] - 0s 29us/step - loss: 4126.6099 - acc: 0.0194 - mean.  
Epoch 686/5000  
103/103 [=====] - 0s 29us/step - loss: 4116.8687 - acc: 0.0194 - mean.  
Epoch 687/5000  
103/103 [=====] - 0s 29us/step - loss: 4107.1675 - acc: 0.0194 - mean.  
Epoch 688/5000  
103/103 [=====] - 0s 19us/step - loss: 4097.4956 - acc: 0.0194 - mean.  
Epoch 689/5000  
103/103 [=====] - 0s 19us/step - loss: 4087.8523 - acc: 0.0194 - mean.  
Epoch 690/5000  
103/103 [=====] - 0s 29us/step - loss: 4078.2329 - acc: 0.0194 - mean.  
Epoch 691/5000  
103/103 [=====] - 0s 39us/step - loss: 4068.6467 - acc: 0.0194 - mean.  
Epoch 692/5000  
103/103 [=====] - 0s 39us/step - loss: 4059.0923 - acc: 0.0194 - mean.  
Epoch 693/5000  
103/103 [=====] - 0s 39us/step - loss: 4049.5701 - acc: 0.0194 - mean.  
Epoch 694/5000  
103/103 [=====] - 0s 29us/step - loss: 4040.0715 - acc: 0.0194 - mean.  
Epoch 695/5000  
103/103 [=====] - 0s 29us/step - loss: 4030.6064 - acc: 0.0194 - mean.  
Epoch 696/5000  
103/103 [=====] - 0s 29us/step - loss: 4021.1729 - acc: 0.0194 - mean.  
Epoch 697/5000  
103/103 [=====] - 0s 39us/step - loss: 4011.7722 - acc: 0.0194 - mean.

Epoch 698/5000  
103/103 [=====] - 0s 39us/step - loss: 4002.3948 - acc: 0.0194 - mean.  
Epoch 699/5000  
103/103 [=====] - 0s 29us/step - loss: 3993.0540 - acc: 0.0194 - mean.  
Epoch 700/5000  
103/103 [=====] - 0s 29us/step - loss: 3983.7422 - acc: 0.0194 - mean.  
Epoch 701/5000  
103/103 [=====] - 0s 39us/step - loss: 3974.4622 - acc: 0.0194 - mean.  
Epoch 702/5000  
103/103 [=====] - 0s 29us/step - loss: 3965.2134 - acc: 0.0097 - mean.  
Epoch 703/5000  
103/103 [=====] - 0s 29us/step - loss: 3955.9929 - acc: 0.0097 - mean.  
Epoch 704/5000  
103/103 [=====] - 0s 39us/step - loss: 3946.8071 - acc: 0.0097 - mean.  
Epoch 705/5000  
103/103 [=====] - 0s 29us/step - loss: 3937.6477 - acc: 0.0097 - mean.  
Epoch 706/5000  
103/103 [=====] - 0s 29us/step - loss: 3928.5225 - acc: 0.0097 - mean.  
Epoch 707/5000  
103/103 [=====] - 0s 29us/step - loss: 3919.4258 - acc: 0.0194 - mean.  
Epoch 708/5000  
103/103 [=====] - 0s 39us/step - loss: 3910.3628 - acc: 0.0194 - mean.  
Epoch 709/5000  
103/103 [=====] - 0s 39us/step - loss: 3901.3301 - acc: 0.0194 - mean.  
Epoch 710/5000  
103/103 [=====] - 0s 39us/step - loss: 3892.3247 - acc: 0.0194 - mean.  
Epoch 711/5000  
103/103 [=====] - 0s 39us/step - loss: 3883.3525 - acc: 0.0194 - mean.  
Epoch 712/5000  
103/103 [=====] - 0s 39us/step - loss: 3874.4045 - acc: 0.0194 - mean.  
Epoch 713/5000  
103/103 [=====] - 0s 29us/step - loss: 3865.4800 - acc: 0.0194 - mean.  
Epoch 714/5000  
103/103 [=====] - 0s 29us/step - loss: 3856.5847 - acc: 0.0194 - mean.  
Epoch 715/5000  
103/103 [=====] - 0s 29us/step - loss: 3847.7236 - acc: 0.0194 - mean.  
Epoch 716/5000  
103/103 [=====] - 0s 29us/step - loss: 3838.8967 - acc: 0.0194 - mean.  
Epoch 717/5000  
103/103 [=====] - 0s 29us/step - loss: 3830.0989 - acc: 0.0194 - mean.  
Epoch 718/5000  
103/103 [=====] - 0s 29us/step - loss: 3821.3225 - acc: 0.0194 - mean.  
Epoch 719/5000  
103/103 [=====] - 0s 39us/step - loss: 3812.5803 - acc: 0.0194 - mean.  
Epoch 720/5000  
103/103 [=====] - 0s 29us/step - loss: 3803.8611 - acc: 0.0194 - mean.  
Epoch 721/5000  
103/103 [=====] - 0s 39us/step - loss: 3795.1721 - acc: 0.0194 - mean.

Epoch 722/5000  
103/103 [=====] - 0s 29us/step - loss: 3786.4939 - acc: 0.0194 - mean.  
Epoch 723/5000  
103/103 [=====] - 0s 29us/step - loss: 3777.8313 - acc: 0.0194 - mean.  
Epoch 724/5000  
103/103 [=====] - 0s 29us/step - loss: 3769.2009 - acc: 0.0097 - mean.  
Epoch 725/5000  
103/103 [=====] - 0s 29us/step - loss: 3760.5967 - acc: 0.0194 - mean.  
Epoch 726/5000  
103/103 [=====] - 0s 29us/step - loss: 3752.0203 - acc: 0.0194 - mean.  
Epoch 727/5000  
103/103 [=====] - 0s 29us/step - loss: 3743.4653 - acc: 0.0194 - mean.  
Epoch 728/5000  
103/103 [=====] - 0s 29us/step - loss: 3734.9441 - acc: 0.0194 - mean.  
Epoch 729/5000  
103/103 [=====] - 0s 29us/step - loss: 3726.4622 - acc: 0.0194 - mean.  
Epoch 730/5000  
103/103 [=====] - 0s 29us/step - loss: 3718.0034 - acc: 0.0194 - mean.  
Epoch 731/5000  
103/103 [=====] - 0s 29us/step - loss: 3709.5725 - acc: 0.0194 - mean.  
Epoch 732/5000  
103/103 [=====] - 0s 29us/step - loss: 3701.1760 - acc: 0.0194 - mean.  
Epoch 733/5000  
103/103 [=====] - 0s 29us/step - loss: 3692.8015 - acc: 0.0194 - mean.  
Epoch 734/5000  
103/103 [=====] - 0s 39us/step - loss: 3684.4250 - acc: 0.0291 - mean.  
Epoch 735/5000  
103/103 [=====] - 0s 29us/step - loss: 3676.0691 - acc: 0.0291 - mean.  
Epoch 736/5000  
103/103 [=====] - 0s 29us/step - loss: 3667.7334 - acc: 0.0291 - mean.  
Epoch 737/5000  
103/103 [=====] - 0s 29us/step - loss: 3659.4265 - acc: 0.0291 - mean.  
Epoch 738/5000  
103/103 [=====] - 0s 39us/step - loss: 3651.1597 - acc: 0.0291 - mean.  
Epoch 739/5000  
103/103 [=====] - 0s 29us/step - loss: 3642.9180 - acc: 0.0291 - mean.  
Epoch 740/5000  
103/103 [=====] - 0s 29us/step - loss: 3634.6958 - acc: 0.0291 - mean.  
Epoch 741/5000  
103/103 [=====] - 0s 29us/step - loss: 3626.5061 - acc: 0.0291 - mean.  
Epoch 742/5000  
103/103 [=====] - 0s 39us/step - loss: 3618.3384 - acc: 0.0194 - mean.  
Epoch 743/5000  
103/103 [=====] - 0s 29us/step - loss: 3610.2090 - acc: 0.0194 - mean.  
Epoch 744/5000  
103/103 [=====] - 0s 39us/step - loss: 3602.1042 - acc: 0.0194 - mean.  
Epoch 745/5000  
103/103 [=====] - 0s 29us/step - loss: 3594.0298 - acc: 0.0194 - mean.

Epoch 746/5000  
103/103 [=====] - 0s 39us/step - loss: 3585.9783 - acc: 0.0194 - mean.  
Epoch 747/5000  
103/103 [=====] - 0s 29us/step - loss: 3577.9639 - acc: 0.0194 - mean.  
Epoch 748/5000  
103/103 [=====] - 0s 39us/step - loss: 3569.9836 - acc: 0.0291 - mean.  
Epoch 749/5000  
103/103 [=====] - 0s 29us/step - loss: 3562.0591 - acc: 0.0291 - mean.  
Epoch 750/5000  
103/103 [=====] - 0s 29us/step - loss: 3554.1609 - acc: 0.0194 - mean.  
Epoch 751/5000  
103/103 [=====] - 0s 29us/step - loss: 3546.2979 - acc: 0.0291 - mean.  
Epoch 752/5000  
103/103 [=====] - 0s 39us/step - loss: 3538.4583 - acc: 0.0291 - mean.  
Epoch 753/5000  
103/103 [=====] - 0s 39us/step - loss: 3530.6567 - acc: 0.0291 - mean.  
Epoch 754/5000  
103/103 [=====] - 0s 29us/step - loss: 3522.8848 - acc: 0.0291 - mean.  
Epoch 755/5000  
103/103 [=====] - 0s 39us/step - loss: 3515.1548 - acc: 0.0291 - mean.  
Epoch 756/5000  
103/103 [=====] - 0s 39us/step - loss: 3507.4448 - acc: 0.0291 - mean.  
Epoch 757/5000  
103/103 [=====] - 0s 29us/step - loss: 3499.7852 - acc: 0.0291 - mean.  
Epoch 758/5000  
103/103 [=====] - 0s 39us/step - loss: 3492.0933 - acc: 0.0194 - mean.  
Epoch 759/5000  
103/103 [=====] - 0s 39us/step - loss: 3484.4285 - acc: 0.0194 - mean.  
Epoch 760/5000  
103/103 [=====] - 0s 29us/step - loss: 3476.7815 - acc: 0.0194 - mean.  
Epoch 761/5000  
103/103 [=====] - 0s 29us/step - loss: 3469.1499 - acc: 0.0194 - mean.  
Epoch 762/5000  
103/103 [=====] - 0s 29us/step - loss: 3461.5400 - acc: 0.0194 - mean.  
Epoch 763/5000  
103/103 [=====] - 0s 39us/step - loss: 3453.9536 - acc: 0.0194 - mean.  
Epoch 764/5000  
103/103 [=====] - 0s 29us/step - loss: 3446.3887 - acc: 0.0194 - mean.  
Epoch 765/5000  
103/103 [=====] - 0s 39us/step - loss: 3438.8540 - acc: 0.0194 - mean.  
Epoch 766/5000  
103/103 [=====] - 0s 39us/step - loss: 3431.3420 - acc: 0.0194 - mean.  
Epoch 767/5000  
103/103 [=====] - 0s 39us/step - loss: 3423.8591 - acc: 0.0194 - mean.  
Epoch 768/5000  
103/103 [=====] - 0s 29us/step - loss: 3416.3936 - acc: 0.0194 - mean.  
Epoch 769/5000  
103/103 [=====] - 0s 39us/step - loss: 3408.9509 - acc: 0.0194 - mean.

Epoch 770/5000  
103/103 [=====] - 0s 39us/step - loss: 3401.5371 - acc: 0.0194 - mean  
Epoch 771/5000  
103/103 [=====] - 0s 39us/step - loss: 3394.1538 - acc: 0.0194 - mean  
Epoch 772/5000  
103/103 [=====] - 0s 39us/step - loss: 3386.9111 - acc: 0.0194 - mean  
Epoch 773/5000  
103/103 [=====] - 0s 29us/step - loss: 3379.7097 - acc: 0.0194 - mean  
Epoch 774/5000  
103/103 [=====] - 0s 39us/step - loss: 3372.5303 - acc: 0.0097 - mean  
Epoch 775/5000  
103/103 [=====] - 0s 29us/step - loss: 3365.3777 - acc: 0.0097 - mean  
Epoch 776/5000  
103/103 [=====] - 0s 29us/step - loss: 3358.2458 - acc: 0.0097 - mean  
Epoch 777/5000  
103/103 [=====] - 0s 39us/step - loss: 3351.1414 - acc: 0.0097 - mean  
Epoch 778/5000  
103/103 [=====] - 0s 39us/step - loss: 3344.0637 - acc: 0.0097 - mean  
Epoch 779/5000  
103/103 [=====] - 0s 29us/step - loss: 3337.0142 - acc: 0.0097 - mean  
Epoch 780/5000  
103/103 [=====] - 0s 29us/step - loss: 3329.9814 - acc: 0.0097 - mean  
Epoch 781/5000  
103/103 [=====] - 0s 29us/step - loss: 3322.9514 - acc: 0.0000e+00 - mean  
Epoch 782/5000  
103/103 [=====] - 0s 39us/step - loss: 3315.9421 - acc: 0.0097 - mean  
Epoch 783/5000  
103/103 [=====] - 0s 39us/step - loss: 3308.9614 - acc: 0.0097 - mean  
Epoch 784/5000  
103/103 [=====] - 0s 19us/step - loss: 3302.0103 - acc: 0.0097 - mean  
Epoch 785/5000  
103/103 [=====] - 0s 39us/step - loss: 3295.0779 - acc: 0.0097 - mean  
Epoch 786/5000  
103/103 [=====] - 0s 29us/step - loss: 3288.1785 - acc: 0.0097 - mean  
Epoch 787/5000  
103/103 [=====] - 0s 29us/step - loss: 3281.2917 - acc: 0.0194 - mean  
Epoch 788/5000  
103/103 [=====] - 0s 29us/step - loss: 3274.4370 - acc: 0.0194 - mean  
Epoch 789/5000  
103/103 [=====] - 0s 39us/step - loss: 3267.5967 - acc: 0.0194 - mean  
Epoch 790/5000  
103/103 [=====] - 0s 29us/step - loss: 3260.7913 - acc: 0.0194 - mean  
Epoch 791/5000  
103/103 [=====] - 0s 39us/step - loss: 3254.0090 - acc: 0.0194 - mean  
Epoch 792/5000  
103/103 [=====] - 0s 19us/step - loss: 3247.2522 - acc: 0.0194 - mean  
Epoch 793/5000  
103/103 [=====] - 0s 29us/step - loss: 3240.5286 - acc: 0.0194 - mean

Epoch 794/5000  
103/103 [=====] - 0s 39us/step - loss: 3233.8230 - acc: 0.0194 - mean  
Epoch 795/5000  
103/103 [=====] - 0s 29us/step - loss: 3227.1533 - acc: 0.0194 - mean  
Epoch 796/5000  
103/103 [=====] - 0s 29us/step - loss: 3220.5083 - acc: 0.0194 - mean  
Epoch 797/5000  
103/103 [=====] - 0s 29us/step - loss: 3213.8909 - acc: 0.0194 - mean  
Epoch 798/5000  
103/103 [=====] - 0s 39us/step - loss: 3207.3010 - acc: 0.0194 - mean  
Epoch 799/5000  
103/103 [=====] - 0s 29us/step - loss: 3200.7339 - acc: 0.0194 - mean  
Epoch 800/5000  
103/103 [=====] - 0s 29us/step - loss: 3194.1736 - acc: 0.0194 - mean  
Epoch 801/5000  
103/103 [=====] - 0s 29us/step - loss: 3187.6265 - acc: 0.0194 - mean  
Epoch 802/5000  
103/103 [=====] - 0s 29us/step - loss: 3181.0984 - acc: 0.0194 - mean  
Epoch 803/5000  
103/103 [=====] - 0s 29us/step - loss: 3174.5847 - acc: 0.0097 - mean  
Epoch 804/5000  
103/103 [=====] - 0s 29us/step - loss: 3168.1145 - acc: 0.0097 - mean  
Epoch 805/5000  
103/103 [=====] - 0s 29us/step - loss: 3161.6626 - acc: 0.0097 - mean  
Epoch 806/5000  
103/103 [=====] - 0s 29us/step - loss: 3155.2271 - acc: 0.0097 - mean  
Epoch 807/5000  
103/103 [=====] - 0s 39us/step - loss: 3148.8171 - acc: 0.0097 - mean  
Epoch 808/5000  
103/103 [=====] - 0s 29us/step - loss: 3142.4292 - acc: 0.0097 - mean  
Epoch 809/5000  
103/103 [=====] - 0s 39us/step - loss: 3136.0730 - acc: 0.0097 - mean  
Epoch 810/5000  
103/103 [=====] - 0s 29us/step - loss: 3129.7524 - acc: 0.0097 - mean  
Epoch 811/5000  
103/103 [=====] - 0s 29us/step - loss: 3123.4590 - acc: 0.0000e+00 - r  
Epoch 812/5000  
103/103 [=====] - 0s 29us/step - loss: 3117.1851 - acc: 0.0000e+00 - r  
Epoch 813/5000  
103/103 [=====] - 0s 29us/step - loss: 3110.9353 - acc: 0.0000e+00 - r  
Epoch 814/5000  
103/103 [=====] - 0s 19us/step - loss: 3104.7202 - acc: 0.0000e+00 - r  
Epoch 815/5000  
103/103 [=====] - 0s 29us/step - loss: 3098.5291 - acc: 0.0000e+00 - r  
Epoch 816/5000  
103/103 [=====] - 0s 39us/step - loss: 3092.3555 - acc: 0.0000e+00 - r  
Epoch 817/5000  
103/103 [=====] - 0s 39us/step - loss: 3086.2029 - acc: 0.0000e+00 - r



Epoch 818/5000  
103/103 [=====] - 0s 29us/step - loss: 3080.0798 - acc: 0.0000e+00 - r  
Epoch 819/5000  
103/103 [=====] - 0s 34us/step - loss: 3073.9822 - acc: 0.0000e+00 - r  
Epoch 820/5000  
103/103 [=====] - 0s 29us/step - loss: 3067.9062 - acc: 0.0000e+00 - r  
Epoch 821/5000  
103/103 [=====] - 0s 39us/step - loss: 3061.8599 - acc: 0.0000e+00 - r  
Epoch 822/5000  
103/103 [=====] - 0s 39us/step - loss: 3055.8303 - acc: 0.0000e+00 - r  
Epoch 823/5000  
103/103 [=====] - 0s 39us/step - loss: 3049.8333 - acc: 0.0000e+00 - r  
Epoch 824/5000  
103/103 [=====] - 0s 29us/step - loss: 3043.8723 - acc: 0.0000e+00 - r  
Epoch 825/5000  
103/103 [=====] - 0s 19us/step - loss: 3037.9600 - acc: 0.0000e+00 - r  
Epoch 826/5000  
103/103 [=====] - 0s 29us/step - loss: 3032.0916 - acc: 0.0000e+00 - r  
Epoch 827/5000  
103/103 [=====] - 0s 19us/step - loss: 3026.2385 - acc: 0.0000e+00 - r  
Epoch 828/5000  
103/103 [=====] - 0s 29us/step - loss: 3020.4163 - acc: 0.0000e+00 - r  
Epoch 829/5000  
103/103 [=====] - 0s 29us/step - loss: 3014.6152 - acc: 0.0000e+00 - r  
Epoch 830/5000  
103/103 [=====] - 0s 29us/step - loss: 3008.8298 - acc: 0.0000e+00 - r  
Epoch 831/5000  
103/103 [=====] - 0s 39us/step - loss: 3003.0867 - acc: 0.0000e+00 - r  
Epoch 832/5000  
103/103 [=====] - 0s 29us/step - loss: 2997.3599 - acc: 0.0000e+00 - r  
Epoch 833/5000  
103/103 [=====] - 0s 29us/step - loss: 2991.6492 - acc: 0.0097 - mean  
Epoch 834/5000  
103/103 [=====] - 0s 29us/step - loss: 2985.9575 - acc: 0.0097 - mean  
Epoch 835/5000  
103/103 [=====] - 0s 29us/step - loss: 2980.3164 - acc: 0.0097 - mean  
Epoch 836/5000  
103/103 [=====] - 0s 39us/step - loss: 2974.7034 - acc: 0.0097 - mean  
Epoch 837/5000  
103/103 [=====] - 0s 29us/step - loss: 2969.1035 - acc: 0.0097 - mean  
Epoch 838/5000  
103/103 [=====] - 0s 29us/step - loss: 2963.5071 - acc: 0.0097 - mean  
Epoch 839/5000  
103/103 [=====] - 0s 29us/step - loss: 2957.9417 - acc: 0.0097 - mean  
Epoch 840/5000  
103/103 [=====] - 0s 39us/step - loss: 2952.3845 - acc: 0.0097 - mean  
Epoch 841/5000  
103/103 [=====] - 0s 19us/step - loss: 2946.8396 - acc: 0.0097 - mean

Epoch 842/5000  
103/103 [=====] - 0s 29us/step - loss: 2941.2988 - acc: 0.0097 - mean.  
Epoch 843/5000  
103/103 [=====] - 0s 29us/step - loss: 2935.7847 - acc: 0.0097 - mean.  
Epoch 844/5000  
103/103 [=====] - 0s 39us/step - loss: 2930.2866 - acc: 0.0097 - mean.  
Epoch 845/5000  
103/103 [=====] - 0s 29us/step - loss: 2924.7595 - acc: 0.0097 - mean.  
Epoch 846/5000  
103/103 [=====] - 0s 39us/step - loss: 2919.2395 - acc: 0.0097 - mean.  
Epoch 847/5000  
103/103 [=====] - 0s 29us/step - loss: 2913.7249 - acc: 0.0097 - mean.  
Epoch 848/5000  
103/103 [=====] - 0s 39us/step - loss: 2908.2275 - acc: 0.0097 - mean.  
Epoch 849/5000  
103/103 [=====] - 0s 39us/step - loss: 2902.6284 - acc: 0.0097 - mean.  
Epoch 850/5000  
103/103 [=====] - 0s 29us/step - loss: 2897.0088 - acc: 0.0097 - mean.  
Epoch 851/5000  
103/103 [=====] - 0s 29us/step - loss: 2891.4158 - acc: 0.0097 - mean.  
Epoch 852/5000  
103/103 [=====] - 0s 39us/step - loss: 2885.8020 - acc: 0.0097 - mean.  
Epoch 853/5000  
103/103 [=====] - 0s 29us/step - loss: 2880.2034 - acc: 0.0097 - mean.  
Epoch 854/5000  
103/103 [=====] - 0s 29us/step - loss: 2874.6155 - acc: 0.0097 - mean.  
Epoch 855/5000  
103/103 [=====] - 0s 29us/step - loss: 2869.0298 - acc: 0.0097 - mean.  
Epoch 856/5000  
103/103 [=====] - 0s 29us/step - loss: 2863.4788 - acc: 0.0097 - mean.  
Epoch 857/5000  
103/103 [=====] - 0s 29us/step - loss: 2857.9487 - acc: 0.0097 - mean.  
Epoch 858/5000  
103/103 [=====] - 0s 39us/step - loss: 2852.4109 - acc: 0.0097 - mean.  
Epoch 859/5000  
103/103 [=====] - 0s 29us/step - loss: 2846.8591 - acc: 0.0097 - mean.  
Epoch 860/5000  
103/103 [=====] - 0s 29us/step - loss: 2841.3186 - acc: 0.0097 - mean.  
Epoch 861/5000  
103/103 [=====] - 0s 29us/step - loss: 2835.7864 - acc: 0.0097 - mean.  
Epoch 862/5000  
103/103 [=====] - 0s 39us/step - loss: 2830.2634 - acc: 0.0097 - mean.  
Epoch 863/5000  
103/103 [=====] - 0s 39us/step - loss: 2824.7410 - acc: 0.0097 - mean.  
Epoch 864/5000  
103/103 [=====] - 0s 29us/step - loss: 2819.1577 - acc: 0.0000e+00 - r  
Epoch 865/5000  
103/103 [=====] - 0s 29us/step - loss: 2813.5837 - acc: 0.0000e+00 - r

Epoch 866/5000  
103/103 [=====] - 0s 29us/step - loss: 2807.9998 - acc: 0.0000e+00 - r  
Epoch 867/5000  
103/103 [=====] - 0s 29us/step - loss: 2802.4365 - acc: 0.0097 - mean  
Epoch 868/5000  
103/103 [=====] - 0s 39us/step - loss: 2796.8809 - acc: 0.0097 - mean  
Epoch 869/5000  
103/103 [=====] - 0s 29us/step - loss: 2791.3528 - acc: 0.0097 - mean  
Epoch 870/5000  
103/103 [=====] - 0s 39us/step - loss: 2785.8103 - acc: 0.0097 - mean  
Epoch 871/5000  
103/103 [=====] - 0s 19us/step - loss: 2780.2551 - acc: 0.0097 - mean  
Epoch 872/5000  
103/103 [=====] - 0s 39us/step - loss: 2774.7053 - acc: 0.0097 - mean  
Epoch 873/5000  
103/103 [=====] - 0s 29us/step - loss: 2769.1477 - acc: 0.0097 - mean  
Epoch 874/5000  
103/103 [=====] - 0s 39us/step - loss: 2763.5779 - acc: 0.0000e+00 - r  
Epoch 875/5000  
103/103 [=====] - 0s 39us/step - loss: 2758.0090 - acc: 0.0000e+00 - r  
Epoch 876/5000  
103/103 [=====] - 0s 29us/step - loss: 2752.4109 - acc: 0.0000e+00 - r  
Epoch 877/5000  
103/103 [=====] - 0s 29us/step - loss: 2746.7974 - acc: 0.0000e+00 - r  
Epoch 878/5000  
103/103 [=====] - 0s 39us/step - loss: 2741.1433 - acc: 0.0097 - mean  
Epoch 879/5000  
103/103 [=====] - 0s 29us/step - loss: 2735.4966 - acc: 0.0097 - mean  
Epoch 880/5000  
103/103 [=====] - 0s 29us/step - loss: 2729.8550 - acc: 0.0097 - mean  
Epoch 881/5000  
103/103 [=====] - 0s 29us/step - loss: 2724.2683 - acc: 0.0097 - mean  
Epoch 882/5000  
103/103 [=====] - 0s 29us/step - loss: 2718.6797 - acc: 0.0097 - mean  
Epoch 883/5000  
103/103 [=====] - 0s 39us/step - loss: 2713.1055 - acc: 0.0097 - mean  
Epoch 884/5000  
103/103 [=====] - 0s 29us/step - loss: 2707.5742 - acc: 0.0097 - mean  
Epoch 885/5000  
103/103 [=====] - 0s 29us/step - loss: 2702.0684 - acc: 0.0097 - mean  
Epoch 886/5000  
103/103 [=====] - 0s 29us/step - loss: 2696.6023 - acc: 0.0097 - mean  
Epoch 887/5000  
103/103 [=====] - 0s 29us/step - loss: 2691.1741 - acc: 0.0097 - mean  
Epoch 888/5000  
103/103 [=====] - 0s 39us/step - loss: 2685.7896 - acc: 0.0097 - mean  
Epoch 889/5000  
103/103 [=====] - 0s 29us/step - loss: 2680.4775 - acc: 0.0097 - mean

Epoch 890/5000  
103/103 [=====] - 0s 29us/step - loss: 2675.1609 - acc: 0.0097 - mean  
Epoch 891/5000  
103/103 [=====] - 0s 29us/step - loss: 2669.8542 - acc: 0.0097 - mean  
Epoch 892/5000  
103/103 [=====] - 0s 29us/step - loss: 2664.5315 - acc: 0.0097 - mean  
Epoch 893/5000  
103/103 [=====] - 0s 39us/step - loss: 2659.1958 - acc: 0.0097 - mean  
Epoch 894/5000  
103/103 [=====] - 0s 29us/step - loss: 2653.8252 - acc: 0.0097 - mean  
Epoch 895/5000  
103/103 [=====] - 0s 29us/step - loss: 2648.4773 - acc: 0.0097 - mean  
Epoch 896/5000  
103/103 [=====] - 0s 39us/step - loss: 2643.1067 - acc: 0.0097 - mean  
Epoch 897/5000  
103/103 [=====] - 0s 29us/step - loss: 2637.8147 - acc: 0.0194 - mean  
Epoch 898/5000  
103/103 [=====] - 0s 29us/step - loss: 2632.5391 - acc: 0.0194 - mean  
Epoch 899/5000  
103/103 [=====] - 0s 39us/step - loss: 2627.2563 - acc: 0.0194 - mean  
Epoch 900/5000  
103/103 [=====] - 0s 29us/step - loss: 2621.9963 - acc: 0.0194 - mean  
Epoch 901/5000  
103/103 [=====] - 0s 29us/step - loss: 2616.7292 - acc: 0.0097 - mean  
Epoch 902/5000  
103/103 [=====] - 0s 39us/step - loss: 2611.4626 - acc: 0.0000e+00 - r  
Epoch 903/5000  
103/103 [=====] - 0s 39us/step - loss: 2606.2153 - acc: 0.0000e+00 - r  
Epoch 904/5000  
103/103 [=====] - 0s 39us/step - loss: 2600.9912 - acc: 0.0000e+00 - r  
Epoch 905/5000  
103/103 [=====] - 0s 39us/step - loss: 2595.7825 - acc: 0.0097 - mean  
Epoch 906/5000  
103/103 [=====] - 0s 39us/step - loss: 2590.5950 - acc: 0.0097 - mean  
Epoch 907/5000  
103/103 [=====] - 0s 39us/step - loss: 2585.4121 - acc: 0.0097 - mean  
Epoch 908/5000  
103/103 [=====] - 0s 29us/step - loss: 2580.2278 - acc: 0.0097 - mean  
Epoch 909/5000  
103/103 [=====] - 0s 39us/step - loss: 2575.0920 - acc: 0.0097 - mean  
Epoch 910/5000  
103/103 [=====] - 0s 39us/step - loss: 2569.9939 - acc: 0.0097 - mean  
Epoch 911/5000  
103/103 [=====] - 0s 29us/step - loss: 2564.9189 - acc: 0.0097 - mean  
Epoch 912/5000  
103/103 [=====] - 0s 29us/step - loss: 2559.8562 - acc: 0.0097 - mean  
Epoch 913/5000  
103/103 [=====] - 0s 39us/step - loss: 2554.8179 - acc: 0.0097 - mean

Epoch 914/5000  
103/103 [=====] - 0s 29us/step - loss: 2549.7998 - acc: 0.0097 - mean  
Epoch 915/5000  
103/103 [=====] - 0s 39us/step - loss: 2544.8115 - acc: 0.0097 - mean  
Epoch 916/5000  
103/103 [=====] - 0s 29us/step - loss: 2539.8711 - acc: 0.0097 - mean  
Epoch 917/5000  
103/103 [=====] - 0s 29us/step - loss: 2534.9297 - acc: 0.0097 - mean  
Epoch 918/5000  
103/103 [=====] - 0s 29us/step - loss: 2529.9890 - acc: 0.0097 - mean  
Epoch 919/5000  
103/103 [=====] - 0s 29us/step - loss: 2525.0500 - acc: 0.0097 - mean  
Epoch 920/5000  
103/103 [=====] - 0s 39us/step - loss: 2520.1543 - acc: 0.0097 - mean  
Epoch 921/5000  
103/103 [=====] - 0s 29us/step - loss: 2515.3093 - acc: 0.0097 - mean  
Epoch 922/5000  
103/103 [=====] - 0s 39us/step - loss: 2510.5022 - acc: 0.0097 - mean  
Epoch 923/5000  
103/103 [=====] - 0s 29us/step - loss: 2505.7183 - acc: 0.0097 - mean  
Epoch 924/5000  
103/103 [=====] - 0s 39us/step - loss: 2500.9690 - acc: 0.0097 - mean  
Epoch 925/5000  
103/103 [=====] - 0s 29us/step - loss: 2496.2529 - acc: 0.0097 - mean  
Epoch 926/5000  
103/103 [=====] - 0s 29us/step - loss: 2491.5354 - acc: 0.0097 - mean  
Epoch 927/5000  
103/103 [=====] - 0s 29us/step - loss: 2486.8232 - acc: 0.0097 - mean  
Epoch 928/5000  
103/103 [=====] - 0s 29us/step - loss: 2482.1978 - acc: 0.0097 - mean  
Epoch 929/5000  
103/103 [=====] - 0s 29us/step - loss: 2477.5830 - acc: 0.0097 - mean  
Epoch 930/5000  
103/103 [=====] - 0s 29us/step - loss: 2472.9829 - acc: 0.0000e+00 - r  
Epoch 931/5000  
103/103 [=====] - 0s 29us/step - loss: 2468.3728 - acc: 0.0000e+00 - r  
Epoch 932/5000  
103/103 [=====] - 0s 29us/step - loss: 2463.8220 - acc: 0.0000e+00 - r  
Epoch 933/5000  
103/103 [=====] - 0s 29us/step - loss: 2459.3064 - acc: 0.0000e+00 - r  
Epoch 934/5000  
103/103 [=====] - 0s 29us/step - loss: 2454.7983 - acc: 0.0000e+00 - r  
Epoch 935/5000  
103/103 [=====] - 0s 29us/step - loss: 2450.3079 - acc: 0.0097 - mean  
Epoch 936/5000  
103/103 [=====] - 0s 29us/step - loss: 2445.8279 - acc: 0.0097 - mean  
Epoch 937/5000  
103/103 [=====] - 0s 29us/step - loss: 2441.4248 - acc: 0.0097 - mean

Epoch 938/5000  
103/103 [=====] - 0s 29us/step - loss: 2437.0427 - acc: 0.0097 - mean,  
Epoch 939/5000  
103/103 [=====] - 0s 29us/step - loss: 2432.7117 - acc: 0.0097 - mean,  
Epoch 940/5000  
103/103 [=====] - 0s 29us/step - loss: 2428.3960 - acc: 0.0000e+00 - r  
Epoch 941/5000  
103/103 [=====] - 0s 39us/step - loss: 2424.0801 - acc: 0.0000e+00 - r  
Epoch 942/5000  
103/103 [=====] - 0s 29us/step - loss: 2419.7786 - acc: 0.0000e+00 - r  
Epoch 943/5000  
103/103 [=====] - 0s 39us/step - loss: 2415.4988 - acc: 0.0000e+00 - r  
Epoch 944/5000  
103/103 [=====] - 0s 29us/step - loss: 2411.2949 - acc: 0.0000e+00 - r  
Epoch 945/5000  
103/103 [=====] - 0s 39us/step - loss: 2407.0913 - acc: 0.0097 - mean,  
Epoch 946/5000  
103/103 [=====] - 0s 29us/step - loss: 2402.8865 - acc: 0.0097 - mean,  
Epoch 947/5000  
103/103 [=====] - 0s 29us/step - loss: 2398.6926 - acc: 0.0097 - mean,  
Epoch 948/5000  
103/103 [=====] - 0s 39us/step - loss: 2394.5417 - acc: 0.0097 - mean,  
Epoch 949/5000  
103/103 [=====] - 0s 29us/step - loss: 2390.4136 - acc: 0.0097 - mean,  
Epoch 950/5000  
103/103 [=====] - 0s 49us/step - loss: 2386.3047 - acc: 0.0097 - mean,  
Epoch 951/5000  
103/103 [=====] - 0s 29us/step - loss: 2382.2083 - acc: 0.0097 - mean,  
Epoch 952/5000  
103/103 [=====] - 0s 39us/step - loss: 2378.1340 - acc: 0.0097 - mean,  
Epoch 953/5000  
103/103 [=====] - 0s 29us/step - loss: 2374.0654 - acc: 0.0194 - mean,  
Epoch 954/5000  
103/103 [=====] - 0s 39us/step - loss: 2370.0217 - acc: 0.0097 - mean,  
Epoch 955/5000  
103/103 [=====] - 0s 39us/step - loss: 2366.0022 - acc: 0.0097 - mean,  
Epoch 956/5000  
103/103 [=====] - 0s 39us/step - loss: 2361.9924 - acc: 0.0097 - mean,  
Epoch 957/5000  
103/103 [=====] - 0s 29us/step - loss: 2358.0239 - acc: 0.0097 - mean,  
Epoch 958/5000  
103/103 [=====] - 0s 29us/step - loss: 2354.0535 - acc: 0.0097 - mean,  
Epoch 959/5000  
103/103 [=====] - 0s 29us/step - loss: 2350.1296 - acc: 0.0097 - mean,  
Epoch 960/5000  
103/103 [=====] - 0s 29us/step - loss: 2346.2051 - acc: 0.0000e+00 - r  
Epoch 961/5000  
103/103 [=====] - 0s 49us/step - loss: 2342.2915 - acc: 0.0000e+00 - r

Epoch 962/5000  
103/103 [=====] - 0s 29us/step - loss: 2338.3921 - acc: 0.0000e+00 - r  
Epoch 963/5000  
103/103 [=====] - 0s 29us/step - loss: 2334.5366 - acc: 0.0000e+00 - r  
Epoch 964/5000  
103/103 [=====] - 0s 29us/step - loss: 2330.7026 - acc: 0.0000e+00 - r  
Epoch 965/5000  
103/103 [=====] - 0s 29us/step - loss: 2326.8713 - acc: 0.0000e+00 - r  
Epoch 966/5000  
103/103 [=====] - 0s 39us/step - loss: 2323.0808 - acc: 0.0000e+00 - r  
Epoch 967/5000  
103/103 [=====] - 0s 29us/step - loss: 2319.3303 - acc: 0.0000e+00 - r  
Epoch 968/5000  
103/103 [=====] - 0s 29us/step - loss: 2315.5779 - acc: 0.0000e+00 - r  
Epoch 969/5000  
103/103 [=====] - 0s 29us/step - loss: 2311.8499 - acc: 0.0000e+00 - r  
Epoch 970/5000  
103/103 [=====] - 0s 29us/step - loss: 2308.1245 - acc: 0.0000e+00 - r  
Epoch 971/5000  
103/103 [=====] - 0s 39us/step - loss: 2304.4224 - acc: 0.0000e+00 - r  
Epoch 972/5000  
103/103 [=====] - 0s 29us/step - loss: 2300.7456 - acc: 0.0000e+00 - r  
Epoch 973/5000  
103/103 [=====] - 0s 39us/step - loss: 2297.0820 - acc: 0.0000e+00 - r  
Epoch 974/5000  
103/103 [=====] - 0s 29us/step - loss: 2293.4771 - acc: 0.0000e+00 - r  
Epoch 975/5000  
103/103 [=====] - 0s 29us/step - loss: 2289.9016 - acc: 0.0000e+00 - r  
Epoch 976/5000  
103/103 [=====] - 0s 29us/step - loss: 2286.3320 - acc: 0.0000e+00 - r  
Epoch 977/5000  
103/103 [=====] - 0s 29us/step - loss: 2282.8152 - acc: 0.0000e+00 - r  
Epoch 978/5000  
103/103 [=====] - 0s 29us/step - loss: 2279.2766 - acc: 0.0000e+00 - r  
Epoch 979/5000  
103/103 [=====] - 0s 39us/step - loss: 2275.7546 - acc: 0.0000e+00 - r  
Epoch 980/5000  
103/103 [=====] - 0s 39us/step - loss: 2272.2783 - acc: 0.0000e+00 - r  
Epoch 981/5000  
103/103 [=====] - 0s 39us/step - loss: 2268.8486 - acc: 0.0000e+00 - r  
Epoch 982/5000  
103/103 [=====] - 0s 39us/step - loss: 2265.4290 - acc: 0.0000e+00 - r  
Epoch 983/5000  
103/103 [=====] - 0s 29us/step - loss: 2262.0166 - acc: 0.0000e+00 - r  
Epoch 984/5000  
103/103 [=====] - 0s 29us/step - loss: 2258.6182 - acc: 0.0000e+00 - r  
Epoch 985/5000  
103/103 [=====] - 0s 39us/step - loss: 2255.2688 - acc: 0.0000e+00 - r

Epoch 986/5000  
103/103 [=====] - 0s 29us/step - loss: 2251.9202 - acc: 0.0000e+00 - r  
Epoch 987/5000  
103/103 [=====] - 0s 29us/step - loss: 2248.5715 - acc: 0.0000e+00 - r  
Epoch 988/5000  
103/103 [=====] - 0s 29us/step - loss: 2245.2339 - acc: 0.0000e+00 - r  
Epoch 989/5000  
103/103 [=====] - 0s 29us/step - loss: 2241.9246 - acc: 0.0000e+00 - r  
Epoch 990/5000  
103/103 [=====] - 0s 39us/step - loss: 2238.6377 - acc: 0.0000e+00 - r  
Epoch 991/5000  
103/103 [=====] - 0s 29us/step - loss: 2235.3779 - acc: 0.0000e+00 - r  
Epoch 992/5000  
103/103 [=====] - 0s 19us/step - loss: 2232.1233 - acc: 0.0000e+00 - r  
Epoch 993/5000  
103/103 [=====] - 0s 29us/step - loss: 2228.8792 - acc: 0.0000e+00 - r  
Epoch 994/5000  
103/103 [=====] - 0s 39us/step - loss: 2225.6545 - acc: 0.0000e+00 - r  
Epoch 995/5000  
103/103 [=====] - 0s 39us/step - loss: 2222.4714 - acc: 0.0000e+00 - r  
Epoch 996/5000  
103/103 [=====] - 0s 29us/step - loss: 2219.2888 - acc: 0.0000e+00 - r  
Epoch 997/5000  
103/103 [=====] - 0s 39us/step - loss: 2216.0684 - acc: 0.0000e+00 - r  
Epoch 998/5000  
103/103 [=====] - 0s 19us/step - loss: 2212.9214 - acc: 0.0000e+00 - r  
Epoch 999/5000  
103/103 [=====] - 0s 39us/step - loss: 2209.7754 - acc: 0.0000e+00 - r  
Epoch 1000/5000  
103/103 [=====] - 0s 29us/step - loss: 2206.6287 - acc: 0.0000e+00 - r  
Epoch 1001/5000  
103/103 [=====] - 0s 39us/step - loss: 2203.5061 - acc: 0.0000e+00 - r  
Epoch 1002/5000  
103/103 [=====] - 0s 29us/step - loss: 2200.4094 - acc: 0.0000e+00 - r  
Epoch 1003/5000  
103/103 [=====] - 0s 29us/step - loss: 2197.3315 - acc: 0.0000e+00 - r  
Epoch 1004/5000  
103/103 [=====] - 0s 29us/step - loss: 2194.2791 - acc: 0.0000e+00 - r  
Epoch 1005/5000  
103/103 [=====] - 0s 29us/step - loss: 2191.2686 - acc: 0.0000e+00 - r  
Epoch 1006/5000  
103/103 [=====] - 0s 29us/step - loss: 2188.2778 - acc: 0.0000e+00 - r  
Epoch 1007/5000  
103/103 [=====] - 0s 29us/step - loss: 2185.2979 - acc: 0.0000e+00 - r  
Epoch 1008/5000  
103/103 [=====] - 0s 29us/step - loss: 2182.3591 - acc: 0.0000e+00 - r  
Epoch 1009/5000  
103/103 [=====] - 0s 29us/step - loss: 2179.4248 - acc: 0.0000e+00 - r



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Epoch 1010/5000
103/103 [=====] - 0s 39us/step - loss: 2176.5166 - acc: 0.0000e+00 - r
Epoch 1011/5000
103/103 [=====] - 0s 39us/step - loss: 2173.6638 - acc: 0.0000e+00 - r
Epoch 1012/5000
103/103 [=====] - 0s 29us/step - loss: 2170.8086 - acc: 0.0000e+00 - r
Epoch 1013/5000
103/103 [=====] - 0s 29us/step - loss: 2167.9561 - acc: 0.0000e+00 - r
Epoch 1014/5000
103/103 [=====] - 0s 29us/step - loss: 2165.1240 - acc: 0.0000e+00 - r
Epoch 1015/5000
103/103 [=====] - 0s 29us/step - loss: 2162.2854 - acc: 0.0000e+00 - r
Epoch 1016/5000
103/103 [=====] - 0s 39us/step - loss: 2159.5005 - acc: 0.0000e+00 - r
Epoch 1017/5000
103/103 [=====] - 0s 29us/step - loss: 2156.7263 - acc: 0.0000e+00 - r
Epoch 1018/5000
103/103 [=====] - 0s 39us/step - loss: 2153.9509 - acc: 0.0000e+00 - r
Epoch 1019/5000
103/103 [=====] - 0s 19us/step - loss: 2151.1726 - acc: 0.0000e+00 - r
Epoch 1020/5000
103/103 [=====] - 0s 19us/step - loss: 2148.4175 - acc: 0.0000e+00 - r
Epoch 1021/5000
103/103 [=====] - 0s 29us/step - loss: 2145.6953 - acc: 0.0000e+00 - r
Epoch 1022/5000
103/103 [=====] - 0s 39us/step - loss: 2142.9736 - acc: 0.0000e+00 - r
Epoch 1023/5000
103/103 [=====] - 0s 39us/step - loss: 2140.2676 - acc: 0.0000e+00 - r
Epoch 1024/5000
103/103 [=====] - 0s 29us/step - loss: 2137.5942 - acc: 0.0000e+00 - r
Epoch 1025/5000
103/103 [=====] - 0s 29us/step - loss: 2134.9272 - acc: 0.0000e+00 - r
Epoch 1026/5000
103/103 [=====] - 0s 29us/step - loss: 2132.2539 - acc: 0.0000e+00 - r
Epoch 1027/5000
103/103 [=====] - 0s 39us/step - loss: 2129.6279 - acc: 0.0000e+00 - r
Epoch 1028/5000
103/103 [=====] - 0s 39us/step - loss: 2126.9841 - acc: 0.0000e+00 - r
Epoch 1029/5000
103/103 [=====] - 0s 29us/step - loss: 2124.3376 - acc: 0.0000e+00 - r
Epoch 1030/5000
103/103 [=====] - 0s 29us/step - loss: 2121.7161 - acc: 0.0097 - mean
Epoch 1031/5000
103/103 [=====] - 0s 29us/step - loss: 2119.1323 - acc: 0.0097 - mean
Epoch 1032/5000
103/103 [=====] - 0s 29us/step - loss: 2116.5486 - acc: 0.0097 - mean
Epoch 1033/5000
103/103 [=====] - 0s 29us/step - loss: 2113.9485 - acc: 0.0097 - mean

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Epoch 1034/5000  
103/103 [=====] - 0s 19us/step - loss: 2111.3477 - acc: 0.0097 - mean.  
Epoch 1035/5000  
103/103 [=====] - 0s 29us/step - loss: 2108.7803 - acc: 0.0097 - mean.  
Epoch 1036/5000  
103/103 [=====] - 0s 29us/step - loss: 2106.2573 - acc: 0.0097 - mean.  
Epoch 1037/5000  
103/103 [=====] - 0s 19us/step - loss: 2103.6946 - acc: 0.0097 - mean.  
Epoch 1038/5000  
103/103 [=====] - 0s 29us/step - loss: 2101.1638 - acc: 0.0097 - mean.  
Epoch 1039/5000  
103/103 [=====] - 0s 29us/step - loss: 2098.6379 - acc: 0.0097 - mean.  
Epoch 1040/5000  
103/103 [=====] - 0s 29us/step - loss: 2096.1462 - acc: 0.0097 - mean.  
Epoch 1041/5000  
103/103 [=====] - 0s 29us/step - loss: 2093.6516 - acc: 0.0097 - mean.  
Epoch 1042/5000  
103/103 [=====] - 0s 29us/step - loss: 2091.1592 - acc: 0.0097 - mean.  
Epoch 1043/5000  
103/103 [=====] - 0s 19us/step - loss: 2088.6477 - acc: 0.0097 - mean.  
Epoch 1044/5000  
103/103 [=====] - 0s 39us/step - loss: 2086.1946 - acc: 0.0097 - mean.  
Epoch 1045/5000  
103/103 [=====] - 0s 39us/step - loss: 2083.7754 - acc: 0.0097 - mean.  
Epoch 1046/5000  
103/103 [=====] - 0s 29us/step - loss: 2081.3213 - acc: 0.0097 - mean.  
Epoch 1047/5000  
103/103 [=====] - 0s 39us/step - loss: 2078.9287 - acc: 0.0097 - mean.  
Epoch 1048/5000  
103/103 [=====] - 0s 39us/step - loss: 2076.5322 - acc: 0.0097 - mean.  
Epoch 1049/5000  
103/103 [=====] - 0s 29us/step - loss: 2074.1267 - acc: 0.0097 - mean.  
Epoch 1050/5000  
103/103 [=====] - 0s 29us/step - loss: 2071.7246 - acc: 0.0097 - mean.  
Epoch 1051/5000  
103/103 [=====] - 0s 49us/step - loss: 2069.3325 - acc: 0.0097 - mean.  
Epoch 1052/5000  
103/103 [=====] - 0s 39us/step - loss: 2066.9316 - acc: 0.0097 - mean.  
Epoch 1053/5000  
103/103 [=====] - 0s 39us/step - loss: 2064.5247 - acc: 0.0097 - mean.  
Epoch 1054/5000  
103/103 [=====] - 0s 39us/step - loss: 2062.1379 - acc: 0.0097 - mean.  
Epoch 1055/5000  
103/103 [=====] - 0s 39us/step - loss: 2059.7610 - acc: 0.0097 - mean.  
Epoch 1056/5000  
103/103 [=====] - 0s 39us/step - loss: 2057.3721 - acc: 0.0097 - mean.  
Epoch 1057/5000  
103/103 [=====] - 0s 29us/step - loss: 2055.0410 - acc: 0.0097 - mean.

Epoch 1058/5000  
103/103 [=====] - 0s 29us/step - loss: 2052.7197 - acc: 0.0097 - mean  
Epoch 1059/5000  
103/103 [=====] - 0s 29us/step - loss: 2050.3772 - acc: 0.0097 - mean  
Epoch 1060/5000  
103/103 [=====] - 0s 29us/step - loss: 2048.0273 - acc: 0.0000e+00 - r  
Epoch 1061/5000  
103/103 [=====] - 0s 39us/step - loss: 2045.6852 - acc: 0.0000e+00 - r  
Epoch 1062/5000  
103/103 [=====] - 0s 29us/step - loss: 2043.3525 - acc: 0.0000e+00 - r  
Epoch 1063/5000  
103/103 [=====] - 0s 39us/step - loss: 2041.0237 - acc: 0.0000e+00 - r  
Epoch 1064/5000  
103/103 [=====] - 0s 29us/step - loss: 2038.7731 - acc: 0.0000e+00 - r  
Epoch 1065/5000  
103/103 [=====] - 0s 39us/step - loss: 2036.5018 - acc: 0.0000e+00 - r  
Epoch 1066/5000  
103/103 [=====] - 0s 39us/step - loss: 2034.1996 - acc: 0.0000e+00 - r  
Epoch 1067/5000  
103/103 [=====] - 0s 29us/step - loss: 2031.8761 - acc: 0.0000e+00 - r  
Epoch 1068/5000  
103/103 [=====] - 0s 39us/step - loss: 2029.6045 - acc: 0.0000e+00 - r  
Epoch 1069/5000  
103/103 [=====] - 0s 29us/step - loss: 2027.3439 - acc: 0.0000e+00 - r  
Epoch 1070/5000  
103/103 [=====] - 0s 39us/step - loss: 2025.0868 - acc: 0.0000e+00 - r  
Epoch 1071/5000  
103/103 [=====] - 0s 29us/step - loss: 2022.8108 - acc: 0.0000e+00 - r  
Epoch 1072/5000  
103/103 [=====] - 0s 29us/step - loss: 2020.5343 - acc: 0.0000e+00 - r  
Epoch 1073/5000  
103/103 [=====] - 0s 29us/step - loss: 2018.3237 - acc: 0.0000e+00 - r  
Epoch 1074/5000  
103/103 [=====] - 0s 29us/step - loss: 2016.0852 - acc: 0.0000e+00 - r  
Epoch 1075/5000  
103/103 [=====] - 0s 29us/step - loss: 2013.8276 - acc: 0.0000e+00 - r  
Epoch 1076/5000  
103/103 [=====] - 0s 39us/step - loss: 2011.6398 - acc: 0.0000e+00 - r  
Epoch 1077/5000  
103/103 [=====] - 0s 29us/step - loss: 2009.4514 - acc: 0.0000e+00 - r  
Epoch 1078/5000  
103/103 [=====] - 0s 29us/step - loss: 2007.2521 - acc: 0.0000e+00 - r  
Epoch 1079/5000  
103/103 [=====] - 0s 29us/step - loss: 2005.0692 - acc: 0.0000e+00 - r  
Epoch 1080/5000  
103/103 [=====] - 0s 29us/step - loss: 2002.8564 - acc: 0.0000e+00 - r  
Epoch 1081/5000  
103/103 [=====] - 0s 39us/step - loss: 2000.6099 - acc: 0.0000e+00 - r

Epoch 1082/5000  
103/103 [=====] - 0s 39us/step - loss: 1998.3706 - acc: 0.0000e+00 - r  
Epoch 1083/5000  
103/103 [=====] - 0s 29us/step - loss: 1996.1267 - acc: 0.0000e+00 - r  
Epoch 1084/5000  
103/103 [=====] - 0s 39us/step - loss: 1993.8950 - acc: 0.0000e+00 - r  
Epoch 1085/5000  
103/103 [=====] - 0s 39us/step - loss: 1991.6088 - acc: 0.0000e+00 - r  
Epoch 1086/5000  
103/103 [=====] - 0s 29us/step - loss: 1989.3898 - acc: 0.0000e+00 - r  
Epoch 1087/5000  
103/103 [=====] - 0s 29us/step - loss: 1987.1552 - acc: 0.0000e+00 - r  
Epoch 1088/5000  
103/103 [=====] - 0s 29us/step - loss: 1984.9023 - acc: 0.0000e+00 - r  
Epoch 1089/5000  
103/103 [=====] - 0s 29us/step - loss: 1982.6420 - acc: 0.0000e+00 - r  
Epoch 1090/5000  
103/103 [=====] - 0s 48us/step - loss: 1980.3921 - acc: 0.0000e+00 - r  
Epoch 1091/5000  
103/103 [=====] - 0s 39us/step - loss: 1978.1371 - acc: 0.0000e+00 - r  
Epoch 1092/5000  
103/103 [=====] - 0s 29us/step - loss: 1975.8873 - acc: 0.0000e+00 - r  
Epoch 1093/5000  
103/103 [=====] - 0s 29us/step - loss: 1973.6471 - acc: 0.0000e+00 - r  
Epoch 1094/5000  
103/103 [=====] - 0s 39us/step - loss: 1971.3676 - acc: 0.0000e+00 - r  
Epoch 1095/5000  
103/103 [=====] - 0s 29us/step - loss: 1969.1317 - acc: 0.0000e+00 - r  
Epoch 1096/5000  
103/103 [=====] - 0s 39us/step - loss: 1966.9075 - acc: 0.0000e+00 - r  
Epoch 1097/5000  
103/103 [=====] - 0s 29us/step - loss: 1964.6836 - acc: 0.0000e+00 - r  
Epoch 1098/5000  
103/103 [=====] - 0s 29us/step - loss: 1962.4708 - acc: 0.0000e+00 - r  
Epoch 1099/5000  
103/103 [=====] - 0s 39us/step - loss: 1960.2782 - acc: 0.0000e+00 - r  
Epoch 1100/5000  
103/103 [=====] - 0s 29us/step - loss: 1958.1212 - acc: 0.0000e+00 - r  
Epoch 1101/5000  
103/103 [=====] - 0s 29us/step - loss: 1955.9404 - acc: 0.0000e+00 - r  
Epoch 1102/5000  
103/103 [=====] - 0s 29us/step - loss: 1953.7611 - acc: 0.0000e+00 - r  
Epoch 1103/5000  
103/103 [=====] - 0s 39us/step - loss: 1951.6117 - acc: 0.0000e+00 - r  
Epoch 1104/5000  
103/103 [=====] - 0s 29us/step - loss: 1949.4539 - acc: 0.0000e+00 - r  
Epoch 1105/5000  
103/103 [=====] - 0s 29us/step - loss: 1947.2699 - acc: 0.0000e+00 - r

Epoch 1106/5000  
103/103 [=====] - 0s 29us/step - loss: 1945.1362 - acc: 0.0000e+00 - r  
Epoch 1107/5000  
103/103 [=====] - 0s 39us/step - loss: 1943.0176 - acc: 0.0000e+00 - r  
Epoch 1108/5000  
103/103 [=====] - 0s 29us/step - loss: 1940.8624 - acc: 0.0000e+00 - r  
Epoch 1109/5000  
103/103 [=====] - 0s 39us/step - loss: 1938.7600 - acc: 0.0000e+00 - r  
Epoch 1110/5000  
103/103 [=====] - 0s 29us/step - loss: 1936.6543 - acc: 0.0000e+00 - r  
Epoch 1111/5000  
103/103 [=====] - 0s 29us/step - loss: 1934.5292 - acc: 0.0000e+00 - r  
Epoch 1112/5000  
103/103 [=====] - 0s 39us/step - loss: 1932.3994 - acc: 0.0000e+00 - r  
Epoch 1113/5000  
103/103 [=====] - 0s 29us/step - loss: 1930.2858 - acc: 0.0000e+00 - r  
Epoch 1114/5000  
103/103 [=====] - 0s 29us/step - loss: 1928.1506 - acc: 0.0000e+00 - r  
Epoch 1115/5000  
103/103 [=====] - 0s 29us/step - loss: 1926.0619 - acc: 0.0000e+00 - r  
Epoch 1116/5000  
103/103 [=====] - 0s 29us/step - loss: 1923.9880 - acc: 0.0000e+00 - r  
Epoch 1117/5000  
103/103 [=====] - 0s 39us/step - loss: 1921.8838 - acc: 0.0000e+00 - r  
Epoch 1118/5000  
103/103 [=====] - 0s 29us/step - loss: 1919.7537 - acc: 0.0000e+00 - r  
Epoch 1119/5000  
103/103 [=====] - 0s 29us/step - loss: 1917.6842 - acc: 0.0000e+00 - r  
Epoch 1120/5000  
103/103 [=====] - 0s 39us/step - loss: 1915.6008 - acc: 0.0000e+00 - r  
Epoch 1121/5000  
103/103 [=====] - 0s 29us/step - loss: 1913.5192 - acc: 0.0000e+00 - r  
Epoch 1122/5000  
103/103 [=====] - 0s 39us/step - loss: 1911.4658 - acc: 0.0000e+00 - r  
Epoch 1123/5000  
103/103 [=====] - 0s 29us/step - loss: 1909.4083 - acc: 0.0000e+00 - r  
Epoch 1124/5000  
103/103 [=====] - 0s 29us/step - loss: 1907.3379 - acc: 0.0000e+00 - r  
Epoch 1125/5000  
103/103 [=====] - 0s 29us/step - loss: 1905.2911 - acc: 0.0000e+00 - r  
Epoch 1126/5000  
103/103 [=====] - 0s 29us/step - loss: 1903.2406 - acc: 0.0000e+00 - r  
Epoch 1127/5000  
103/103 [=====] - 0s 39us/step - loss: 1901.2117 - acc: 0.0000e+00 - r  
Epoch 1128/5000  
103/103 [=====] - 0s 29us/step - loss: 1899.1636 - acc: 0.0000e+00 - r  
Epoch 1129/5000  
103/103 [=====] - 0s 29us/step - loss: 1897.1289 - acc: 0.0000e+00 - r

Epoch 1130/5000  
103/103 [=====] - 0s 29us/step - loss: 1895.1042 - acc: 0.0000e+00 - mean  
Epoch 1131/5000  
103/103 [=====] - 0s 29us/step - loss: 1893.0830 - acc: 0.0097 - mean  
Epoch 1132/5000  
103/103 [=====] - 0s 19us/step - loss: 1891.0493 - acc: 0.0194 - mean  
Epoch 1133/5000  
103/103 [=====] - 0s 29us/step - loss: 1889.0590 - acc: 0.0194 - mean  
Epoch 1134/5000  
103/103 [=====] - 0s 29us/step - loss: 1887.0518 - acc: 0.0194 - mean  
Epoch 1135/5000  
103/103 [=====] - 0s 29us/step - loss: 1885.0123 - acc: 0.0194 - mean  
Epoch 1136/5000  
103/103 [=====] - 0s 29us/step - loss: 1883.0337 - acc: 0.0194 - mean  
Epoch 1137/5000  
103/103 [=====] - 0s 29us/step - loss: 1881.0586 - acc: 0.0194 - mean  
Epoch 1138/5000  
103/103 [=====] - 0s 29us/step - loss: 1879.0676 - acc: 0.0194 - mean  
Epoch 1139/5000  
103/103 [=====] - 0s 39us/step - loss: 1877.0745 - acc: 0.0194 - mean  
Epoch 1140/5000  
103/103 [=====] - 0s 29us/step - loss: 1875.0879 - acc: 0.0194 - mean  
Epoch 1141/5000  
103/103 [=====] - 0s 39us/step - loss: 1873.0868 - acc: 0.0194 - mean  
Epoch 1142/5000  
103/103 [=====] - 0s 29us/step - loss: 1871.1906 - acc: 0.0194 - mean  
Epoch 1143/5000  
103/103 [=====] - 0s 39us/step - loss: 1869.2523 - acc: 0.0194 - mean  
Epoch 1144/5000  
103/103 [=====] - 0s 29us/step - loss: 1867.2760 - acc: 0.0194 - mean  
Epoch 1145/5000  
103/103 [=====] - 0s 39us/step - loss: 1865.2686 - acc: 0.0194 - mean  
Epoch 1146/5000  
103/103 [=====] - 0s 29us/step - loss: 1863.3218 - acc: 0.0194 - mean  
Epoch 1147/5000  
103/103 [=====] - 0s 29us/step - loss: 1861.4020 - acc: 0.0194 - mean  
Epoch 1148/5000  
103/103 [=====] - 0s 29us/step - loss: 1859.4719 - acc: 0.0097 - mean  
Epoch 1149/5000  
103/103 [=====] - 0s 39us/step - loss: 1857.5383 - acc: 0.0097 - mean  
Epoch 1150/5000  
103/103 [=====] - 0s 29us/step - loss: 1855.5881 - acc: 0.0097 - mean  
Epoch 1151/5000  
103/103 [=====] - 0s 29us/step - loss: 1853.6331 - acc: 0.0097 - mean  
Epoch 1152/5000  
103/103 [=====] - 0s 39us/step - loss: 1851.6692 - acc: 0.0097 - mean  
Epoch 1153/5000  
103/103 [=====] - 0s 29us/step - loss: 1849.7623 - acc: 0.0097 - mean

Epoch 1154/5000  
103/103 [=====] - 0s 48us/step - loss: 1847.8306 - acc: 0.0097 - mean.  
Epoch 1155/5000  
103/103 [=====] - 0s 29us/step - loss: 1845.9490 - acc: 0.0097 - mean.  
Epoch 1156/5000  
103/103 [=====] - 0s 29us/step - loss: 1844.0626 - acc: 0.0097 - mean.  
Epoch 1157/5000  
103/103 [=====] - 0s 29us/step - loss: 1842.1743 - acc: 0.0097 - mean.  
Epoch 1158/5000  
103/103 [=====] - 0s 29us/step - loss: 1840.2625 - acc: 0.0097 - mean.  
Epoch 1159/5000  
103/103 [=====] - 0s 29us/step - loss: 1838.3362 - acc: 0.0097 - mean.  
Epoch 1160/5000  
103/103 [=====] - 0s 19us/step - loss: 1836.4771 - acc: 0.0097 - mean.  
Epoch 1161/5000  
103/103 [=====] - 0s 39us/step - loss: 1834.6007 - acc: 0.0097 - mean.  
Epoch 1162/5000  
103/103 [=====] - 0s 29us/step - loss: 1832.6980 - acc: 0.0097 - mean.  
Epoch 1163/5000  
103/103 [=====] - 0s 39us/step - loss: 1830.7898 - acc: 0.0097 - mean.  
Epoch 1164/5000  
103/103 [=====] - 0s 29us/step - loss: 1828.9344 - acc: 0.0097 - mean.  
Epoch 1165/5000  
103/103 [=====] - 0s 39us/step - loss: 1827.0813 - acc: 0.0097 - mean.  
Epoch 1166/5000  
103/103 [=====] - 0s 39us/step - loss: 1825.2190 - acc: 0.0097 - mean.  
Epoch 1167/5000  
103/103 [=====] - 0s 29us/step - loss: 1823.3345 - acc: 0.0097 - mean.  
Epoch 1168/5000  
103/103 [=====] - 0s 39us/step - loss: 1821.4994 - acc: 0.0097 - mean.  
Epoch 1169/5000  
103/103 [=====] - 0s 39us/step - loss: 1819.6356 - acc: 0.0097 - mean.  
Epoch 1170/5000  
103/103 [=====] - 0s 29us/step - loss: 1817.7717 - acc: 0.0097 - mean.  
Epoch 1171/5000  
103/103 [=====] - 0s 29us/step - loss: 1815.9331 - acc: 0.0097 - mean.  
Epoch 1172/5000  
103/103 [=====] - 0s 39us/step - loss: 1814.0850 - acc: 0.0097 - mean.  
Epoch 1173/5000  
103/103 [=====] - 0s 29us/step - loss: 1812.2344 - acc: 0.0097 - mean.  
Epoch 1174/5000  
103/103 [=====] - 0s 29us/step - loss: 1810.3783 - acc: 0.0097 - mean.  
Epoch 1175/5000  
103/103 [=====] - 0s 19us/step - loss: 1808.5566 - acc: 0.0097 - mean.  
Epoch 1176/5000  
103/103 [=====] - 0s 39us/step - loss: 1806.7264 - acc: 0.0097 - mean.  
Epoch 1177/5000  
103/103 [=====] - 0s 29us/step - loss: 1804.8965 - acc: 0.0097 - mean.

Epoch 1178/5000  
103/103 [=====] - 0s 29us/step - loss: 1803.0820 - acc: 0.0097 - mean.  
Epoch 1179/5000  
103/103 [=====] - 0s 29us/step - loss: 1801.2643 - acc: 0.0097 - mean.  
Epoch 1180/5000  
103/103 [=====] - 0s 29us/step - loss: 1799.4307 - acc: 0.0097 - mean.  
Epoch 1181/5000  
103/103 [=====] - 0s 29us/step - loss: 1797.6401 - acc: 0.0097 - mean.  
Epoch 1182/5000  
103/103 [=====] - 0s 29us/step - loss: 1795.8219 - acc: 0.0097 - mean.  
Epoch 1183/5000  
103/103 [=====] - 0s 29us/step - loss: 1794.0245 - acc: 0.0097 - mean.  
Epoch 1184/5000  
103/103 [=====] - 0s 29us/step - loss: 1792.2196 - acc: 0.0097 - mean.  
Epoch 1185/5000  
103/103 [=====] - 0s 39us/step - loss: 1790.4026 - acc: 0.0097 - mean.  
Epoch 1186/5000  
103/103 [=====] - 0s 39us/step - loss: 1788.6023 - acc: 0.0097 - mean.  
Epoch 1187/5000  
103/103 [=====] - 0s 29us/step - loss: 1786.7960 - acc: 0.0097 - mean.  
Epoch 1188/5000  
103/103 [=====] - 0s 39us/step - loss: 1784.9911 - acc: 0.0097 - mean.  
Epoch 1189/5000  
103/103 [=====] - 0s 29us/step - loss: 1783.1969 - acc: 0.0097 - mean.  
Epoch 1190/5000  
103/103 [=====] - 0s 39us/step - loss: 1781.4193 - acc: 0.0097 - mean.  
Epoch 1191/5000  
103/103 [=====] - 0s 39us/step - loss: 1779.6311 - acc: 0.0097 - mean.  
Epoch 1192/5000  
103/103 [=====] - 0s 29us/step - loss: 1777.8237 - acc: 0.0097 - mean.  
Epoch 1193/5000  
103/103 [=====] - 0s 39us/step - loss: 1776.0500 - acc: 0.0097 - mean.  
Epoch 1194/5000  
103/103 [=====] - 0s 29us/step - loss: 1774.2562 - acc: 0.0097 - mean.  
Epoch 1195/5000  
103/103 [=====] - 0s 19us/step - loss: 1772.4838 - acc: 0.0097 - mean.  
Epoch 1196/5000  
103/103 [=====] - 0s 29us/step - loss: 1770.7361 - acc: 0.0097 - mean.  
Epoch 1197/5000  
103/103 [=====] - 0s 29us/step - loss: 1768.9943 - acc: 0.0097 - mean.  
Epoch 1198/5000  
103/103 [=====] - 0s 29us/step - loss: 1767.2692 - acc: 0.0194 - mean.  
Epoch 1199/5000  
103/103 [=====] - 0s 29us/step - loss: 1765.5417 - acc: 0.0194 - mean.  
Epoch 1200/5000  
103/103 [=====] - 0s 29us/step - loss: 1763.8013 - acc: 0.0194 - mean.  
Epoch 1201/5000  
103/103 [=====] - 0s 29us/step - loss: 1762.0684 - acc: 0.0194 - mean.



Epoch 1202/5000  
103/103 [=====] - 0s 39us/step - loss: 1760.3339 - acc: 0.0194 - mean.  
Epoch 1203/5000  
103/103 [=====] - 0s 29us/step - loss: 1758.6499 - acc: 0.0194 - mean.  
Epoch 1204/5000  
103/103 [=====] - 0s 39us/step - loss: 1756.9338 - acc: 0.0194 - mean.  
Epoch 1205/5000  
103/103 [=====] - 0s 29us/step - loss: 1755.1930 - acc: 0.0194 - mean.  
Epoch 1206/5000  
103/103 [=====] - 0s 29us/step - loss: 1753.4674 - acc: 0.0291 - mean.  
Epoch 1207/5000  
103/103 [=====] - 0s 29us/step - loss: 1751.7543 - acc: 0.0291 - mean.  
Epoch 1208/5000  
103/103 [=====] - 0s 29us/step - loss: 1750.1238 - acc: 0.0291 - mean.  
Epoch 1209/5000  
103/103 [=====] - 0s 39us/step - loss: 1748.4033 - acc: 0.0291 - mean.  
Epoch 1210/5000  
103/103 [=====] - 0s 29us/step - loss: 1746.6287 - acc: 0.0291 - mean.  
Epoch 1211/5000  
103/103 [=====] - 0s 29us/step - loss: 1744.9393 - acc: 0.0291 - mean.  
Epoch 1212/5000  
103/103 [=====] - 0s 29us/step - loss: 1743.2655 - acc: 0.0291 - mean.  
Epoch 1213/5000  
103/103 [=====] - 0s 29us/step - loss: 1741.5889 - acc: 0.0291 - mean.  
Epoch 1214/5000  
103/103 [=====] - 0s 39us/step - loss: 1739.8895 - acc: 0.0291 - mean.  
Epoch 1215/5000  
103/103 [=====] - 0s 19us/step - loss: 1738.2030 - acc: 0.0291 - mean.  
Epoch 1216/5000  
103/103 [=====] - 0s 39us/step - loss: 1736.5125 - acc: 0.0291 - mean.  
Epoch 1217/5000  
103/103 [=====] - 0s 29us/step - loss: 1734.8732 - acc: 0.0194 - mean.  
Epoch 1218/5000  
103/103 [=====] - 0s 39us/step - loss: 1733.2133 - acc: 0.0194 - mean.  
Epoch 1219/5000  
103/103 [=====] - 0s 29us/step - loss: 1731.5243 - acc: 0.0194 - mean.  
Epoch 1220/5000  
103/103 [=====] - 0s 29us/step - loss: 1729.8352 - acc: 0.0194 - mean.  
Epoch 1221/5000  
103/103 [=====] - 0s 29us/step - loss: 1728.1898 - acc: 0.0194 - mean.  
Epoch 1222/5000  
103/103 [=====] - 0s 29us/step - loss: 1726.5244 - acc: 0.0194 - mean.  
Epoch 1223/5000  
103/103 [=====] - 0s 29us/step - loss: 1724.8599 - acc: 0.0194 - mean.  
Epoch 1224/5000  
103/103 [=====] - 0s 29us/step - loss: 1723.2095 - acc: 0.0194 - mean.  
Epoch 1225/5000  
103/103 [=====] - 0s 29us/step - loss: 1721.5663 - acc: 0.0194 - mean.

Epoch 1226/5000  
103/103 [=====] - 0s 29us/step - loss: 1719.9221 - acc: 0.0194 - mean.  
Epoch 1227/5000  
103/103 [=====] - 0s 29us/step - loss: 1718.2682 - acc: 0.0097 - mean.  
Epoch 1228/5000  
103/103 [=====] - 0s 29us/step - loss: 1716.6002 - acc: 0.0097 - mean.  
Epoch 1229/5000  
103/103 [=====] - 0s 29us/step - loss: 1714.9481 - acc: 0.0097 - mean.  
Epoch 1230/5000  
103/103 [=====] - 0s 29us/step - loss: 1713.2880 - acc: 0.0097 - mean.  
Epoch 1231/5000  
103/103 [=====] - 0s 39us/step - loss: 1711.6536 - acc: 0.0097 - mean.  
Epoch 1232/5000  
103/103 [=====] - 0s 29us/step - loss: 1710.0261 - acc: 0.0097 - mean.  
Epoch 1233/5000  
103/103 [=====] - 0s 29us/step - loss: 1708.4045 - acc: 0.0097 - mean.  
Epoch 1234/5000  
103/103 [=====] - 0s 29us/step - loss: 1706.7882 - acc: 0.0097 - mean.  
Epoch 1235/5000  
103/103 [=====] - 0s 29us/step - loss: 1705.1431 - acc: 0.0097 - mean.  
Epoch 1236/5000  
103/103 [=====] - 0s 19us/step - loss: 1703.5048 - acc: 0.0097 - mean.  
Epoch 1237/5000  
103/103 [=====] - 0s 29us/step - loss: 1701.8596 - acc: 0.0097 - mean.  
Epoch 1238/5000  
103/103 [=====] - 0s 29us/step - loss: 1700.3069 - acc: 0.0097 - mean.  
Epoch 1239/5000  
103/103 [=====] - 0s 29us/step - loss: 1698.7000 - acc: 0.0097 - mean.  
Epoch 1240/5000  
103/103 [=====] - 0s 19us/step - loss: 1697.0370 - acc: 0.0097 - mean.  
Epoch 1241/5000  
103/103 [=====] - 0s 29us/step - loss: 1695.4210 - acc: 0.0097 - mean.  
Epoch 1242/5000  
103/103 [=====] - 0s 39us/step - loss: 1693.7864 - acc: 0.0097 - mean.  
Epoch 1243/5000  
103/103 [=====] - 0s 29us/step - loss: 1692.1862 - acc: 0.0097 - mean.  
Epoch 1244/5000  
103/103 [=====] - 0s 39us/step - loss: 1690.5668 - acc: 0.0097 - mean.  
Epoch 1245/5000  
103/103 [=====] - 0s 29us/step - loss: 1688.9751 - acc: 0.0097 - mean.  
Epoch 1246/5000  
103/103 [=====] - 0s 29us/step - loss: 1687.3445 - acc: 0.0097 - mean.  
Epoch 1247/5000  
103/103 [=====] - 0s 29us/step - loss: 1685.6880 - acc: 0.0097 - mean.  
Epoch 1248/5000  
103/103 [=====] - 0s 39us/step - loss: 1684.0956 - acc: 0.0097 - mean.  
Epoch 1249/5000  
103/103 [=====] - 0s 29us/step - loss: 1682.5045 - acc: 0.0097 - mean.

Epoch 1250/5000  
103/103 [=====] - 0s 29us/step - loss: 1680.9093 - acc: 0.0097 - mean.  
Epoch 1251/5000  
103/103 [=====] - 0s 29us/step - loss: 1679.3021 - acc: 0.0097 - mean.  
Epoch 1252/5000  
103/103 [=====] - 0s 29us/step - loss: 1677.6732 - acc: 0.0097 - mean.  
Epoch 1253/5000  
103/103 [=====] - 0s 29us/step - loss: 1676.0752 - acc: 0.0097 - mean.  
Epoch 1254/5000  
103/103 [=====] - 0s 29us/step - loss: 1674.4785 - acc: 0.0097 - mean.  
Epoch 1255/5000  
103/103 [=====] - 0s 29us/step - loss: 1672.8799 - acc: 0.0097 - mean.  
Epoch 1256/5000  
103/103 [=====] - 0s 39us/step - loss: 1671.2996 - acc: 0.0097 - mean.  
Epoch 1257/5000  
103/103 [=====] - 0s 39us/step - loss: 1669.6914 - acc: 0.0097 - mean.  
Epoch 1258/5000  
103/103 [=====] - 0s 39us/step - loss: 1668.0990 - acc: 0.0097 - mean.  
Epoch 1259/5000  
103/103 [=====] - 0s 29us/step - loss: 1666.5009 - acc: 0.0097 - mean.  
Epoch 1260/5000  
103/103 [=====] - 0s 29us/step - loss: 1664.9088 - acc: 0.0097 - mean.  
Epoch 1261/5000  
103/103 [=====] - 0s 29us/step - loss: 1663.3420 - acc: 0.0097 - mean.  
Epoch 1262/5000  
103/103 [=====] - 0s 29us/step - loss: 1661.7102 - acc: 0.0097 - mean.  
Epoch 1263/5000  
103/103 [=====] - 0s 19us/step - loss: 1660.1185 - acc: 0.0097 - mean.  
Epoch 1264/5000  
103/103 [=====] - 0s 29us/step - loss: 1658.5361 - acc: 0.0097 - mean.  
Epoch 1265/5000  
103/103 [=====] - 0s 29us/step - loss: 1656.9507 - acc: 0.0097 - mean.  
Epoch 1266/5000  
103/103 [=====] - 0s 39us/step - loss: 1655.3763 - acc: 0.0097 - mean.  
Epoch 1267/5000  
103/103 [=====] - 0s 29us/step - loss: 1653.7981 - acc: 0.0097 - mean.  
Epoch 1268/5000  
103/103 [=====] - 0s 29us/step - loss: 1652.2161 - acc: 0.0097 - mean.  
Epoch 1269/5000  
103/103 [=====] - 0s 29us/step - loss: 1650.6226 - acc: 0.0097 - mean.  
Epoch 1270/5000  
103/103 [=====] - 0s 29us/step - loss: 1649.0831 - acc: 0.0097 - mean.  
Epoch 1271/5000  
103/103 [=====] - 0s 39us/step - loss: 1647.4989 - acc: 0.0000e+00 - r  
Epoch 1272/5000  
103/103 [=====] - 0s 29us/step - loss: 1645.9570 - acc: 0.0000e+00 - r  
Epoch 1273/5000  
103/103 [=====] - 0s 29us/step - loss: 1644.3888 - acc: 0.0000e+00 - r

Epoch 1274/5000  
103/103 [=====] - 0s 29us/step - loss: 1642.8364 - acc: 0.0000e+00 - r  
Epoch 1275/5000  
103/103 [=====] - 0s 39us/step - loss: 1641.2812 - acc: 0.0000e+00 - r  
Epoch 1276/5000  
103/103 [=====] - 0s 29us/step - loss: 1639.7318 - acc: 0.0000e+00 - r  
Epoch 1277/5000  
103/103 [=====] - 0s 19us/step - loss: 1638.1807 - acc: 0.0000e+00 - r  
Epoch 1278/5000  
103/103 [=====] - 0s 29us/step - loss: 1636.5823 - acc: 0.0000e+00 - r  
Epoch 1279/5000  
103/103 [=====] - 0s 39us/step - loss: 1635.1082 - acc: 0.0000e+00 - r  
Epoch 1280/5000  
103/103 [=====] - 0s 29us/step - loss: 1633.6255 - acc: 0.0000e+00 - r  
Epoch 1281/5000  
103/103 [=====] - 0s 29us/step - loss: 1632.1049 - acc: 0.0000e+00 - r  
Epoch 1282/5000  
103/103 [=====] - 0s 19us/step - loss: 1630.5493 - acc: 0.0000e+00 - r  
Epoch 1283/5000  
103/103 [=====] - 0s 39us/step - loss: 1629.0468 - acc: 0.0000e+00 - r  
Epoch 1284/5000  
103/103 [=====] - 0s 39us/step - loss: 1627.5375 - acc: 0.0000e+00 - r  
Epoch 1285/5000  
103/103 [=====] - 0s 29us/step - loss: 1626.0712 - acc: 0.0000e+00 - r  
Epoch 1286/5000  
103/103 [=====] - 0s 29us/step - loss: 1624.5381 - acc: 0.0000e+00 - r  
Epoch 1287/5000  
103/103 [=====] - 0s 29us/step - loss: 1623.0370 - acc: 0.0000e+00 - r  
Epoch 1288/5000  
103/103 [=====] - 0s 29us/step - loss: 1621.5814 - acc: 0.0000e+00 - r  
Epoch 1289/5000  
103/103 [=====] - 0s 29us/step - loss: 1620.0823 - acc: 0.0000e+00 - r  
Epoch 1290/5000  
103/103 [=====] - 0s 29us/step - loss: 1618.5848 - acc: 0.0000e+00 - r  
Epoch 1291/5000  
103/103 [=====] - 0s 29us/step - loss: 1617.1182 - acc: 0.0000e+00 - r  
Epoch 1292/5000  
103/103 [=====] - 0s 29us/step - loss: 1615.6185 - acc: 0.0000e+00 - r  
Epoch 1293/5000  
103/103 [=====] - 0s 29us/step - loss: 1614.0852 - acc: 0.0000e+00 - r  
Epoch 1294/5000  
103/103 [=====] - 0s 29us/step - loss: 1612.6436 - acc: 0.0097 - mean,  
Epoch 1295/5000  
103/103 [=====] - 0s 39us/step - loss: 1611.1938 - acc: 0.0097 - mean,  
Epoch 1296/5000  
103/103 [=====] - 0s 19us/step - loss: 1609.6532 - acc: 0.0097 - mean,  
Epoch 1297/5000  
103/103 [=====] - 0s 39us/step - loss: 1608.1748 - acc: 0.0097 - mean,

Epoch 1298/5000  
103/103 [=====] - 0s 29us/step - loss: 1606.7362 - acc: 0.0097 - mean.  
Epoch 1299/5000  
103/103 [=====] - 0s 29us/step - loss: 1605.2657 - acc: 0.0097 - mean.  
Epoch 1300/5000  
103/103 [=====] - 0s 29us/step - loss: 1603.8401 - acc: 0.0097 - mean.  
Epoch 1301/5000  
103/103 [=====] - 0s 29us/step - loss: 1602.4102 - acc: 0.0097 - mean.  
Epoch 1302/5000  
103/103 [=====] - 0s 29us/step - loss: 1600.9536 - acc: 0.0097 - mean.  
Epoch 1303/5000  
103/103 [=====] - 0s 29us/step - loss: 1599.5077 - acc: 0.0097 - mean.  
Epoch 1304/5000  
103/103 [=====] - 0s 39us/step - loss: 1598.0331 - acc: 0.0097 - mean.  
Epoch 1305/5000  
103/103 [=====] - 0s 29us/step - loss: 1596.5979 - acc: 0.0097 - mean.  
Epoch 1306/5000  
103/103 [=====] - 0s 39us/step - loss: 1595.1614 - acc: 0.0097 - mean.  
Epoch 1307/5000  
103/103 [=====] - 0s 29us/step - loss: 1593.7606 - acc: 0.0097 - mean.  
Epoch 1308/5000  
103/103 [=====] - 0s 29us/step - loss: 1592.3463 - acc: 0.0097 - mean.  
Epoch 1309/5000  
103/103 [=====] - 0s 29us/step - loss: 1590.9054 - acc: 0.0097 - mean.  
Epoch 1310/5000  
103/103 [=====] - 0s 29us/step - loss: 1589.4412 - acc: 0.0097 - mean.  
Epoch 1311/5000  
103/103 [=====] - 0s 29us/step - loss: 1588.0237 - acc: 0.0097 - mean.  
Epoch 1312/5000  
103/103 [=====] - 0s 29us/step - loss: 1586.5811 - acc: 0.0097 - mean.  
Epoch 1313/5000  
103/103 [=====] - 0s 39us/step - loss: 1585.1208 - acc: 0.0097 - mean.  
Epoch 1314/5000  
103/103 [=====] - 0s 29us/step - loss: 1583.7823 - acc: 0.0097 - mean.  
Epoch 1315/5000  
103/103 [=====] - 0s 29us/step - loss: 1582.3418 - acc: 0.0097 - mean.  
Epoch 1316/5000  
103/103 [=====] - 0s 29us/step - loss: 1580.8599 - acc: 0.0097 - mean.  
Epoch 1317/5000  
103/103 [=====] - 0s 39us/step - loss: 1579.4927 - acc: 0.0097 - mean.  
Epoch 1318/5000  
103/103 [=====] - 0s 29us/step - loss: 1578.1305 - acc: 0.0097 - mean.  
Epoch 1319/5000  
103/103 [=====] - 0s 29us/step - loss: 1576.7206 - acc: 0.0097 - mean.  
Epoch 1320/5000  
103/103 [=====] - 0s 29us/step - loss: 1575.2719 - acc: 0.0097 - mean.  
Epoch 1321/5000  
103/103 [=====] - 0s 29us/step - loss: 1573.8013 - acc: 0.0097 - mean.

Epoch 1322/5000  
103/103 [=====] - 0s 39us/step - loss: 1572.4420 - acc: 0.0097 - mean.  
Epoch 1323/5000  
103/103 [=====] - 0s 29us/step - loss: 1571.0757 - acc: 0.0097 - mean.  
Epoch 1324/5000  
103/103 [=====] - 0s 29us/step - loss: 1569.6388 - acc: 0.0097 - mean.  
Epoch 1325/5000  
103/103 [=====] - 0s 29us/step - loss: 1568.2296 - acc: 0.0097 - mean.  
Epoch 1326/5000  
103/103 [=====] - 0s 29us/step - loss: 1566.8689 - acc: 0.0097 - mean.  
Epoch 1327/5000  
103/103 [=====] - 0s 29us/step - loss: 1565.5104 - acc: 0.0097 - mean.  
Epoch 1328/5000  
103/103 [=====] - 0s 39us/step - loss: 1564.1123 - acc: 0.0097 - mean.  
Epoch 1329/5000  
103/103 [=====] - 0s 29us/step - loss: 1562.7305 - acc: 0.0097 - mean.  
Epoch 1330/5000  
103/103 [=====] - 0s 19us/step - loss: 1561.3333 - acc: 0.0097 - mean.  
Epoch 1331/5000  
103/103 [=====] - 0s 29us/step - loss: 1559.9069 - acc: 0.0097 - mean.  
Epoch 1332/5000  
103/103 [=====] - 0s 29us/step - loss: 1558.5657 - acc: 0.0097 - mean.  
Epoch 1333/5000  
103/103 [=====] - 0s 29us/step - loss: 1557.2202 - acc: 0.0097 - mean.  
Epoch 1334/5000  
103/103 [=====] - 0s 19us/step - loss: 1555.8302 - acc: 0.0097 - mean.  
Epoch 1335/5000  
103/103 [=====] - 0s 29us/step - loss: 1554.4536 - acc: 0.0097 - mean.  
Epoch 1336/5000  
103/103 [=====] - 0s 29us/step - loss: 1553.1320 - acc: 0.0194 - mean.  
Epoch 1337/5000  
103/103 [=====] - 0s 39us/step - loss: 1551.7537 - acc: 0.0194 - mean.  
Epoch 1338/5000  
103/103 [=====] - 0s 29us/step - loss: 1550.3450 - acc: 0.0097 - mean.  
Epoch 1339/5000  
103/103 [=====] - 0s 29us/step - loss: 1549.0795 - acc: 0.0097 - mean.  
Epoch 1340/5000  
103/103 [=====] - 0s 29us/step - loss: 1547.7412 - acc: 0.0097 - mean.  
Epoch 1341/5000  
103/103 [=====] - 0s 29us/step - loss: 1546.3599 - acc: 0.0097 - mean.  
Epoch 1342/5000  
103/103 [=====] - 0s 39us/step - loss: 1545.0404 - acc: 0.0097 - mean.  
Epoch 1343/5000  
103/103 [=====] - 0s 29us/step - loss: 1543.7218 - acc: 0.0097 - mean.  
Epoch 1344/5000  
103/103 [=====] - 0s 29us/step - loss: 1542.3665 - acc: 0.0194 - mean.  
Epoch 1345/5000  
103/103 [=====] - 0s 29us/step - loss: 1541.0101 - acc: 0.0194 - mean.

Epoch 1346/5000  
103/103 [=====] - 0s 39us/step - loss: 1539.6932 - acc: 0.0194 - mean.  
Epoch 1347/5000  
103/103 [=====] - 0s 39us/step - loss: 1538.3881 - acc: 0.0194 - mean.  
Epoch 1348/5000  
103/103 [=====] - 0s 29us/step - loss: 1537.1039 - acc: 0.0194 - mean.  
Epoch 1349/5000  
103/103 [=====] - 0s 29us/step - loss: 1535.8002 - acc: 0.0194 - mean.  
Epoch 1350/5000  
103/103 [=====] - 0s 29us/step - loss: 1534.4392 - acc: 0.0194 - mean.  
Epoch 1351/5000  
103/103 [=====] - 0s 29us/step - loss: 1533.0674 - acc: 0.0194 - mean.  
Epoch 1352/5000  
103/103 [=====] - 0s 29us/step - loss: 1531.7488 - acc: 0.0194 - mean.  
Epoch 1353/5000  
103/103 [=====] - 0s 39us/step - loss: 1530.4604 - acc: 0.0194 - mean.  
Epoch 1354/5000  
103/103 [=====] - 0s 29us/step - loss: 1529.1699 - acc: 0.0194 - mean.  
Epoch 1355/5000  
103/103 [=====] - 0s 29us/step - loss: 1527.8324 - acc: 0.0194 - mean.  
Epoch 1356/5000  
103/103 [=====] - 0s 29us/step - loss: 1526.5177 - acc: 0.0194 - mean.  
Epoch 1357/5000  
103/103 [=====] - 0s 29us/step - loss: 1525.1439 - acc: 0.0194 - mean.  
Epoch 1358/5000  
103/103 [=====] - 0s 29us/step - loss: 1523.7593 - acc: 0.0194 - mean.  
Epoch 1359/5000  
103/103 [=====] - 0s 29us/step - loss: 1522.4424 - acc: 0.0194 - mean.  
Epoch 1360/5000  
103/103 [=====] - 0s 39us/step - loss: 1521.0215 - acc: 0.0194 - mean.  
Epoch 1361/5000  
103/103 [=====] - 0s 29us/step - loss: 1519.6207 - acc: 0.0194 - mean.  
Epoch 1362/5000  
103/103 [=====] - 0s 29us/step - loss: 1518.2964 - acc: 0.0194 - mean.  
Epoch 1363/5000  
103/103 [=====] - 0s 29us/step - loss: 1516.8879 - acc: 0.0194 - mean.  
Epoch 1364/5000  
103/103 [=====] - 0s 39us/step - loss: 1515.4530 - acc: 0.0194 - mean.  
Epoch 1365/5000  
103/103 [=====] - 0s 29us/step - loss: 1514.0225 - acc: 0.0194 - mean.  
Epoch 1366/5000  
103/103 [=====] - 0s 29us/step - loss: 1512.5940 - acc: 0.0194 - mean.  
Epoch 1367/5000  
103/103 [=====] - 0s 29us/step - loss: 1511.2079 - acc: 0.0194 - mean.  
Epoch 1368/5000  
103/103 [=====] - 0s 29us/step - loss: 1509.8082 - acc: 0.0194 - mean.  
Epoch 1369/5000  
103/103 [=====] - 0s 29us/step - loss: 1508.4167 - acc: 0.0194 - mean.

Epoch 1370/5000  
103/103 [=====] - 0s 29us/step - loss: 1507.0173 - acc: 0.0194 - mean  
Epoch 1371/5000  
103/103 [=====] - 0s 29us/step - loss: 1505.6536 - acc: 0.0194 - mean  
Epoch 1372/5000  
103/103 [=====] - 0s 29us/step - loss: 1504.2811 - acc: 0.0194 - mean  
Epoch 1373/5000  
103/103 [=====] - 0s 29us/step - loss: 1502.8632 - acc: 0.0194 - mean  
Epoch 1374/5000  
103/103 [=====] - 0s 29us/step - loss: 1501.4736 - acc: 0.0194 - mean  
Epoch 1375/5000  
103/103 [=====] - 0s 39us/step - loss: 1500.0807 - acc: 0.0194 - mean  
Epoch 1376/5000  
103/103 [=====] - 0s 29us/step - loss: 1498.6810 - acc: 0.0194 - mean  
Epoch 1377/5000  
103/103 [=====] - 0s 39us/step - loss: 1497.2939 - acc: 0.0194 - mean  
Epoch 1378/5000  
103/103 [=====] - 0s 29us/step - loss: 1495.9060 - acc: 0.0194 - mean  
Epoch 1379/5000  
103/103 [=====] - 0s 39us/step - loss: 1494.4917 - acc: 0.0194 - mean  
Epoch 1380/5000  
103/103 [=====] - 0s 39us/step - loss: 1493.1218 - acc: 0.0194 - mean  
Epoch 1381/5000  
103/103 [=====] - 0s 39us/step - loss: 1491.6980 - acc: 0.0194 - mean  
Epoch 1382/5000  
103/103 [=====] - 0s 29us/step - loss: 1490.3134 - acc: 0.0194 - mean  
Epoch 1383/5000  
103/103 [=====] - 0s 29us/step - loss: 1488.9370 - acc: 0.0194 - mean  
Epoch 1384/5000  
103/103 [=====] - 0s 29us/step - loss: 1487.5704 - acc: 0.0194 - mean  
Epoch 1385/5000  
103/103 [=====] - 0s 29us/step - loss: 1486.1746 - acc: 0.0194 - mean  
Epoch 1386/5000  
103/103 [=====] - 0s 29us/step - loss: 1484.7614 - acc: 0.0194 - mean  
Epoch 1387/5000  
103/103 [=====] - 0s 29us/step - loss: 1483.3719 - acc: 0.0194 - mean  
Epoch 1388/5000  
103/103 [=====] - 0s 29us/step - loss: 1481.9764 - acc: 0.0194 - mean  
Epoch 1389/5000  
103/103 [=====] - 0s 29us/step - loss: 1480.6279 - acc: 0.0194 - mean  
Epoch 1390/5000  
103/103 [=====] - 0s 29us/step - loss: 1479.2271 - acc: 0.0194 - mean  
Epoch 1391/5000  
103/103 [=====] - 0s 29us/step - loss: 1477.8524 - acc: 0.0194 - mean  
Epoch 1392/5000  
103/103 [=====] - 0s 29us/step - loss: 1476.5061 - acc: 0.0194 - mean  
Epoch 1393/5000  
103/103 [=====] - 0s 29us/step - loss: 1475.1926 - acc: 0.0194 - mean



Epoch 1394/5000  
103/103 [=====] - 0s 39us/step - loss: 1473.7721 - acc: 0.0194 - mean.  
Epoch 1395/5000  
103/103 [=====] - 0s 29us/step - loss: 1472.3883 - acc: 0.0194 - mean.  
Epoch 1396/5000  
103/103 [=====] - 0s 39us/step - loss: 1471.1241 - acc: 0.0194 - mean.  
Epoch 1397/5000  
103/103 [=====] - 0s 29us/step - loss: 1469.7882 - acc: 0.0194 - mean.  
Epoch 1398/5000  
103/103 [=====] - 0s 39us/step - loss: 1468.3752 - acc: 0.0194 - mean.  
Epoch 1399/5000  
103/103 [=====] - 0s 29us/step - loss: 1467.0269 - acc: 0.0194 - mean.  
Epoch 1400/5000  
103/103 [=====] - 0s 29us/step - loss: 1465.6764 - acc: 0.0194 - mean.  
Epoch 1401/5000  
103/103 [=====] - 0s 39us/step - loss: 1464.3536 - acc: 0.0194 - mean.  
Epoch 1402/5000  
103/103 [=====] - 0s 29us/step - loss: 1463.0286 - acc: 0.0194 - mean.  
Epoch 1403/5000  
103/103 [=====] - 0s 39us/step - loss: 1461.7526 - acc: 0.0194 - mean.  
Epoch 1404/5000  
103/103 [=====] - 0s 29us/step - loss: 1460.4031 - acc: 0.0194 - mean.  
Epoch 1405/5000  
103/103 [=====] - 0s 39us/step - loss: 1459.0927 - acc: 0.0194 - mean.  
Epoch 1406/5000  
103/103 [=====] - 0s 39us/step - loss: 1457.8196 - acc: 0.0194 - mean.  
Epoch 1407/5000  
103/103 [=====] - 0s 39us/step - loss: 1456.5165 - acc: 0.0194 - mean.  
Epoch 1408/5000  
103/103 [=====] - 0s 29us/step - loss: 1455.1687 - acc: 0.0097 - mean.  
Epoch 1409/5000  
103/103 [=====] - 0s 29us/step - loss: 1453.8254 - acc: 0.0097 - mean.  
Epoch 1410/5000  
103/103 [=====] - 0s 39us/step - loss: 1452.5558 - acc: 0.0097 - mean.  
Epoch 1411/5000  
103/103 [=====] - 0s 39us/step - loss: 1451.2574 - acc: 0.0097 - mean.  
Epoch 1412/5000  
103/103 [=====] - 0s 39us/step - loss: 1449.9695 - acc: 0.0097 - mean.  
Epoch 1413/5000  
103/103 [=====] - 0s 39us/step - loss: 1448.6705 - acc: 0.0097 - mean.  
Epoch 1414/5000  
103/103 [=====] - 0s 39us/step - loss: 1447.3967 - acc: 0.0097 - mean.  
Epoch 1415/5000  
103/103 [=====] - 0s 39us/step - loss: 1446.1218 - acc: 0.0097 - mean.  
Epoch 1416/5000  
103/103 [=====] - 0s 29us/step - loss: 1444.8231 - acc: 0.0097 - mean.  
Epoch 1417/5000  
103/103 [=====] - 0s 39us/step - loss: 1443.5050 - acc: 0.0097 - mean.

Epoch 1418/5000  
103/103 [=====] - 0s 29us/step - loss: 1442.2017 - acc: 0.0097 - mean.  
Epoch 1419/5000  
103/103 [=====] - 0s 29us/step - loss: 1440.9480 - acc: 0.0097 - mean.  
Epoch 1420/5000  
103/103 [=====] - 0s 29us/step - loss: 1439.6775 - acc: 0.0097 - mean.  
Epoch 1421/5000  
103/103 [=====] - 0s 29us/step - loss: 1438.4000 - acc: 0.0097 - mean.  
Epoch 1422/5000  
103/103 [=====] - 0s 29us/step - loss: 1437.1309 - acc: 0.0097 - mean.  
Epoch 1423/5000  
103/103 [=====] - 0s 29us/step - loss: 1435.8267 - acc: 0.0097 - mean.  
Epoch 1424/5000  
103/103 [=====] - 0s 39us/step - loss: 1434.6377 - acc: 0.0097 - mean.  
Epoch 1425/5000  
103/103 [=====] - 0s 19us/step - loss: 1433.3055 - acc: 0.0097 - mean.  
Epoch 1426/5000  
103/103 [=====] - 0s 39us/step - loss: 1432.0616 - acc: 0.0097 - mean.  
Epoch 1427/5000  
103/103 [=====] - 0s 29us/step - loss: 1430.8795 - acc: 0.0097 - mean.  
Epoch 1428/5000  
103/103 [=====] - 0s 39us/step - loss: 1429.6573 - acc: 0.0097 - mean.  
Epoch 1429/5000  
103/103 [=====] - 0s 29us/step - loss: 1428.3918 - acc: 0.0097 - mean.  
Epoch 1430/5000  
103/103 [=====] - 0s 29us/step - loss: 1427.0743 - acc: 0.0097 - mean.  
Epoch 1431/5000  
103/103 [=====] - 0s 29us/step - loss: 1425.8611 - acc: 0.0097 - mean.  
Epoch 1432/5000  
103/103 [=====] - 0s 29us/step - loss: 1424.6599 - acc: 0.0097 - mean.  
Epoch 1433/5000  
103/103 [=====] - 0s 19us/step - loss: 1423.3531 - acc: 0.0097 - mean.  
Epoch 1434/5000  
103/103 [=====] - 0s 29us/step - loss: 1422.1167 - acc: 0.0097 - mean.  
Epoch 1435/5000  
103/103 [=====] - 0s 39us/step - loss: 1420.8612 - acc: 0.0097 - mean.  
Epoch 1436/5000  
103/103 [=====] - 0s 19us/step - loss: 1419.6145 - acc: 0.0097 - mean.  
Epoch 1437/5000  
103/103 [=====] - 0s 29us/step - loss: 1418.4160 - acc: 0.0097 - mean.  
Epoch 1438/5000  
103/103 [=====] - 0s 29us/step - loss: 1417.1656 - acc: 0.0097 - mean.  
Epoch 1439/5000  
103/103 [=====] - 0s 29us/step - loss: 1415.9524 - acc: 0.0097 - mean.  
Epoch 1440/5000  
103/103 [=====] - 0s 29us/step - loss: 1414.7507 - acc: 0.0097 - mean.  
Epoch 1441/5000  
103/103 [=====] - 0s 29us/step - loss: 1413.5273 - acc: 0.0097 - mean.

Epoch 1442/5000  
103/103 [=====] - 0s 29us/step - loss: 1412.3124 - acc: 0.0097 - mean.  
Epoch 1443/5000  
103/103 [=====] - 0s 29us/step - loss: 1411.0793 - acc: 0.0097 - mean.  
Epoch 1444/5000  
103/103 [=====] - 0s 29us/step - loss: 1409.8901 - acc: 0.0097 - mean.  
Epoch 1445/5000  
103/103 [=====] - 0s 29us/step - loss: 1408.6945 - acc: 0.0097 - mean.  
Epoch 1446/5000  
103/103 [=====] - 0s 29us/step - loss: 1407.4994 - acc: 0.0097 - mean.  
Epoch 1447/5000  
103/103 [=====] - 0s 29us/step - loss: 1406.2971 - acc: 0.0097 - mean.  
Epoch 1448/5000  
103/103 [=====] - 0s 39us/step - loss: 1405.0825 - acc: 0.0097 - mean.  
Epoch 1449/5000  
103/103 [=====] - 0s 29us/step - loss: 1403.9005 - acc: 0.0097 - mean.  
Epoch 1450/5000  
103/103 [=====] - 0s 29us/step - loss: 1402.6825 - acc: 0.0097 - mean.  
Epoch 1451/5000  
103/103 [=====] - 0s 39us/step - loss: 1401.4930 - acc: 0.0097 - mean.  
Epoch 1452/5000  
103/103 [=====] - 0s 29us/step - loss: 1400.2844 - acc: 0.0097 - mean.  
Epoch 1453/5000  
103/103 [=====] - 0s 29us/step - loss: 1399.1143 - acc: 0.0097 - mean.  
Epoch 1454/5000  
103/103 [=====] - 0s 39us/step - loss: 1397.9476 - acc: 0.0097 - mean.  
Epoch 1455/5000  
103/103 [=====] - 0s 39us/step - loss: 1396.7764 - acc: 0.0097 - mean.  
Epoch 1456/5000  
103/103 [=====] - 0s 49us/step - loss: 1395.5839 - acc: 0.0097 - mean.  
Epoch 1457/5000  
103/103 [=====] - 0s 49us/step - loss: 1394.4114 - acc: 0.0097 - mean.  
Epoch 1458/5000  
103/103 [=====] - 0s 29us/step - loss: 1393.2495 - acc: 0.0097 - mean.  
Epoch 1459/5000  
103/103 [=====] - 0s 39us/step - loss: 1392.0492 - acc: 0.0097 - mean.  
Epoch 1460/5000  
103/103 [=====] - 0s 39us/step - loss: 1390.9073 - acc: 0.0097 - mean.  
Epoch 1461/5000  
103/103 [=====] - 0s 29us/step - loss: 1389.7794 - acc: 0.0194 - mean.  
Epoch 1462/5000  
103/103 [=====] - 0s 29us/step - loss: 1388.5939 - acc: 0.0194 - mean.  
Epoch 1463/5000  
103/103 [=====] - 0s 39us/step - loss: 1387.4089 - acc: 0.0194 - mean.  
Epoch 1464/5000  
103/103 [=====] - 0s 39us/step - loss: 1386.2826 - acc: 0.0097 - mean.  
Epoch 1465/5000  
103/103 [=====] - 0s 39us/step - loss: 1385.1215 - acc: 0.0097 - mean.

Epoch 1466/5000  
103/103 [=====] - 0s 29us/step - loss: 1383.9437 - acc: 0.0194 - mean.  
Epoch 1467/5000  
103/103 [=====] - 0s 29us/step - loss: 1382.7958 - acc: 0.0194 - mean.  
Epoch 1468/5000  
103/103 [=====] - 0s 29us/step - loss: 1381.6515 - acc: 0.0194 - mean.  
Epoch 1469/5000  
103/103 [=====] - 0s 29us/step - loss: 1380.4830 - acc: 0.0194 - mean.  
Epoch 1470/5000  
103/103 [=====] - 0s 29us/step - loss: 1379.3748 - acc: 0.0194 - mean.  
Epoch 1471/5000  
103/103 [=====] - 0s 29us/step - loss: 1378.1914 - acc: 0.0194 - mean.  
Epoch 1472/5000  
103/103 [=====] - 0s 29us/step - loss: 1377.0343 - acc: 0.0194 - mean.  
Epoch 1473/5000  
103/103 [=====] - 0s 29us/step - loss: 1375.8948 - acc: 0.0194 - mean.  
Epoch 1474/5000  
103/103 [=====] - 0s 29us/step - loss: 1374.7469 - acc: 0.0194 - mean.  
Epoch 1475/5000  
103/103 [=====] - 0s 19us/step - loss: 1373.6257 - acc: 0.0194 - mean.  
Epoch 1476/5000  
103/103 [=====] - 0s 29us/step - loss: 1372.4774 - acc: 0.0194 - mean.  
Epoch 1477/5000  
103/103 [=====] - 0s 29us/step - loss: 1371.3645 - acc: 0.0194 - mean.  
Epoch 1478/5000  
103/103 [=====] - 0s 29us/step - loss: 1370.2509 - acc: 0.0194 - mean.  
Epoch 1479/5000  
103/103 [=====] - 0s 29us/step - loss: 1369.1082 - acc: 0.0194 - mean.  
Epoch 1480/5000  
103/103 [=====] - 0s 29us/step - loss: 1367.9650 - acc: 0.0194 - mean.  
Epoch 1481/5000  
103/103 [=====] - 0s 29us/step - loss: 1366.8379 - acc: 0.0194 - mean.  
Epoch 1482/5000  
103/103 [=====] - 0s 29us/step - loss: 1365.7218 - acc: 0.0194 - mean.  
Epoch 1483/5000  
103/103 [=====] - 0s 29us/step - loss: 1364.6173 - acc: 0.0194 - mean.  
Epoch 1484/5000  
103/103 [=====] - 0s 29us/step - loss: 1363.4846 - acc: 0.0194 - mean.  
Epoch 1485/5000  
103/103 [=====] - 0s 29us/step - loss: 1362.3956 - acc: 0.0194 - mean.  
Epoch 1486/5000  
103/103 [=====] - 0s 39us/step - loss: 1361.2423 - acc: 0.0194 - mean.  
Epoch 1487/5000  
103/103 [=====] - 0s 39us/step - loss: 1360.1383 - acc: 0.0194 - mean.  
Epoch 1488/5000  
103/103 [=====] - 0s 39us/step - loss: 1359.0337 - acc: 0.0194 - mean.  
Epoch 1489/5000  
103/103 [=====] - 0s 29us/step - loss: 1357.9164 - acc: 0.0194 - mean.

Epoch 1490/5000  
103/103 [=====] - 0s 29us/step - loss: 1356.8105 - acc: 0.0194 - mean.  
Epoch 1491/5000  
103/103 [=====] - 0s 39us/step - loss: 1355.6946 - acc: 0.0194 - mean.  
Epoch 1492/5000  
103/103 [=====] - 0s 29us/step - loss: 1354.6001 - acc: 0.0194 - mean.  
Epoch 1493/5000  
103/103 [=====] - 0s 29us/step - loss: 1353.5804 - acc: 0.0194 - mean.  
Epoch 1494/5000  
103/103 [=====] - 0s 29us/step - loss: 1352.4398 - acc: 0.0194 - mean.  
Epoch 1495/5000  
103/103 [=====] - 0s 29us/step - loss: 1351.3823 - acc: 0.0194 - mean.  
Epoch 1496/5000  
103/103 [=====] - 0s 29us/step - loss: 1350.3293 - acc: 0.0194 - mean.  
Epoch 1497/5000  
103/103 [=====] - 0s 29us/step - loss: 1349.2671 - acc: 0.0194 - mean.  
Epoch 1498/5000  
103/103 [=====] - 0s 29us/step - loss: 1348.1890 - acc: 0.0194 - mean.  
Epoch 1499/5000  
103/103 [=====] - 0s 29us/step - loss: 1347.0851 - acc: 0.0194 - mean.  
Epoch 1500/5000  
103/103 [=====] - 0s 29us/step - loss: 1346.0282 - acc: 0.0194 - mean.  
Epoch 1501/5000  
103/103 [=====] - 0s 29us/step - loss: 1344.9719 - acc: 0.0194 - mean.  
Epoch 1502/5000  
103/103 [=====] - 0s 29us/step - loss: 1343.9948 - acc: 0.0194 - mean.  
Epoch 1503/5000  
103/103 [=====] - 0s 39us/step - loss: 1342.9502 - acc: 0.0194 - mean.  
Epoch 1504/5000  
103/103 [=====] - 0s 29us/step - loss: 1341.8356 - acc: 0.0194 - mean.  
Epoch 1505/5000  
103/103 [=====] - 0s 29us/step - loss: 1340.8020 - acc: 0.0194 - mean.  
Epoch 1506/5000  
103/103 [=====] - 0s 19us/step - loss: 1339.7668 - acc: 0.0194 - mean.  
Epoch 1507/5000  
103/103 [=====] - 0s 29us/step - loss: 1338.6896 - acc: 0.0194 - mean.  
Epoch 1508/5000  
103/103 [=====] - 0s 29us/step - loss: 1337.7263 - acc: 0.0194 - mean.  
Epoch 1509/5000  
103/103 [=====] - 0s 29us/step - loss: 1336.7214 - acc: 0.0194 - mean.  
Epoch 1510/5000  
103/103 [=====] - 0s 29us/step - loss: 1335.6227 - acc: 0.0194 - mean.  
Epoch 1511/5000  
103/103 [=====] - 0s 29us/step - loss: 1334.6086 - acc: 0.0194 - mean.  
Epoch 1512/5000  
103/103 [=====] - 0s 19us/step - loss: 1333.6469 - acc: 0.0194 - mean.  
Epoch 1513/5000  
103/103 [=====] - 0s 29us/step - loss: 1332.5775 - acc: 0.0194 - mean.

Epoch 1514/5000  
103/103 [=====] - 0s 29us/step - loss: 1331.5573 - acc: 0.0194 - mean.  
Epoch 1515/5000  
103/103 [=====] - 0s 39us/step - loss: 1330.5374 - acc: 0.0194 - mean.  
Epoch 1516/5000  
103/103 [=====] - 0s 29us/step - loss: 1329.4694 - acc: 0.0194 - mean.  
Epoch 1517/5000  
103/103 [=====] - 0s 29us/step - loss: 1328.5149 - acc: 0.0194 - mean.  
Epoch 1518/5000  
103/103 [=====] - 0s 39us/step - loss: 1327.5250 - acc: 0.0194 - mean.  
Epoch 1519/5000  
103/103 [=====] - 0s 39us/step - loss: 1326.4504 - acc: 0.0194 - mean.  
Epoch 1520/5000  
103/103 [=====] - 0s 29us/step - loss: 1325.4746 - acc: 0.0194 - mean.  
Epoch 1521/5000  
103/103 [=====] - 0s 39us/step - loss: 1324.5114 - acc: 0.0194 - mean.  
Epoch 1522/5000  
103/103 [=====] - 0s 29us/step - loss: 1323.5076 - acc: 0.0194 - mean.  
Epoch 1523/5000  
103/103 [=====] - 0s 29us/step - loss: 1322.5345 - acc: 0.0194 - mean.  
Epoch 1524/5000  
103/103 [=====] - 0s 29us/step - loss: 1321.5327 - acc: 0.0194 - mean.  
Epoch 1525/5000  
103/103 [=====] - 0s 39us/step - loss: 1320.5099 - acc: 0.0194 - mean.  
Epoch 1526/5000  
103/103 [=====] - 0s 29us/step - loss: 1319.5350 - acc: 0.0194 - mean.  
Epoch 1527/5000  
103/103 [=====] - 0s 29us/step - loss: 1318.6223 - acc: 0.0194 - mean.  
Epoch 1528/5000  
103/103 [=====] - 0s 39us/step - loss: 1317.6221 - acc: 0.0194 - mean.  
Epoch 1529/5000  
103/103 [=====] - 0s 29us/step - loss: 1316.7327 - acc: 0.0194 - mean.  
Epoch 1530/5000  
103/103 [=====] - 0s 29us/step - loss: 1315.8062 - acc: 0.0194 - mean.  
Epoch 1531/5000  
103/103 [=====] - 0s 39us/step - loss: 1314.8937 - acc: 0.0194 - mean.  
Epoch 1532/5000  
103/103 [=====] - 0s 29us/step - loss: 1313.9769 - acc: 0.0194 - mean.  
Epoch 1533/5000  
103/103 [=====] - 0s 29us/step - loss: 1313.0569 - acc: 0.0194 - mean.  
Epoch 1534/5000  
103/103 [=====] - 0s 29us/step - loss: 1312.1433 - acc: 0.0194 - mean.  
Epoch 1535/5000  
103/103 [=====] - 0s 29us/step - loss: 1311.2212 - acc: 0.0194 - mean.  
Epoch 1536/5000  
103/103 [=====] - 0s 29us/step - loss: 1310.2511 - acc: 0.0097 - mean.  
Epoch 1537/5000  
103/103 [=====] - 0s 29us/step - loss: 1309.2749 - acc: 0.0194 - mean.

Epoch 1538/5000  
103/103 [=====] - 0s 29us/step - loss: 1308.4255 - acc: 0.0194 - mean.  
Epoch 1539/5000  
103/103 [=====] - 0s 29us/step - loss: 1307.5065 - acc: 0.0194 - mean.  
Epoch 1540/5000  
103/103 [=====] - 0s 19us/step - loss: 1306.4401 - acc: 0.0194 - mean.  
Epoch 1541/5000  
103/103 [=====] - 0s 29us/step - loss: 1305.5002 - acc: 0.0097 - mean.  
Epoch 1542/5000  
103/103 [=====] - 0s 39us/step - loss: 1304.5774 - acc: 0.0194 - mean.  
Epoch 1543/5000  
103/103 [=====] - 0s 19us/step - loss: 1303.6161 - acc: 0.0194 - mean.  
Epoch 1544/5000  
103/103 [=====] - 0s 29us/step - loss: 1302.6918 - acc: 0.0194 - mean.  
Epoch 1545/5000  
103/103 [=====] - 0s 29us/step - loss: 1301.7214 - acc: 0.0194 - mean.  
Epoch 1546/5000  
103/103 [=====] - 0s 39us/step - loss: 1300.7034 - acc: 0.0194 - mean.  
Epoch 1547/5000  
103/103 [=====] - 0s 29us/step - loss: 1299.8175 - acc: 0.0194 - mean.  
Epoch 1548/5000  
103/103 [=====] - 0s 29us/step - loss: 1298.8511 - acc: 0.0097 - mean.  
Epoch 1549/5000  
103/103 [=====] - 0s 39us/step - loss: 1297.8527 - acc: 0.0097 - mean.  
Epoch 1550/5000  
103/103 [=====] - 0s 29us/step - loss: 1296.8983 - acc: 0.0097 - mean.  
Epoch 1551/5000  
103/103 [=====] - 0s 29us/step - loss: 1295.9729 - acc: 0.0097 - mean.  
Epoch 1552/5000  
103/103 [=====] - 0s 29us/step - loss: 1295.0770 - acc: 0.0097 - mean.  
Epoch 1553/5000  
103/103 [=====] - 0s 29us/step - loss: 1294.1305 - acc: 0.0097 - mean.  
Epoch 1554/5000  
103/103 [=====] - 0s 29us/step - loss: 1293.3057 - acc: 0.0097 - mean.  
Epoch 1555/5000  
103/103 [=====] - 0s 29us/step - loss: 1292.4304 - acc: 0.0097 - mean.  
Epoch 1556/5000  
103/103 [=====] - 0s 29us/step - loss: 1291.5245 - acc: 0.0097 - mean.  
Epoch 1557/5000  
103/103 [=====] - 0s 29us/step - loss: 1290.6499 - acc: 0.0097 - mean.  
Epoch 1558/5000  
103/103 [=====] - 0s 29us/step - loss: 1289.7500 - acc: 0.0097 - mean.  
Epoch 1559/5000  
103/103 [=====] - 0s 29us/step - loss: 1288.9584 - acc: 0.0097 - mean.  
Epoch 1560/5000  
103/103 [=====] - 0s 29us/step - loss: 1288.0968 - acc: 0.0097 - mean.  
Epoch 1561/5000  
103/103 [=====] - 0s 29us/step - loss: 1287.1533 - acc: 0.0097 - mean.

Epoch 1562/5000  
103/103 [=====] - 0s 29us/step - loss: 1286.3226 - acc: 0.0097 - mean  
Epoch 1563/5000  
103/103 [=====] - 0s 29us/step - loss: 1285.5338 - acc: 0.0097 - mean  
Epoch 1564/5000  
103/103 [=====] - 0s 29us/step - loss: 1284.6726 - acc: 0.0097 - mean  
Epoch 1565/5000  
103/103 [=====] - 0s 29us/step - loss: 1283.8263 - acc: 0.0097 - mean  
Epoch 1566/5000  
103/103 [=====] - 0s 29us/step - loss: 1282.9700 - acc: 0.0097 - mean  
Epoch 1567/5000  
103/103 [=====] - 0s 29us/step - loss: 1282.0862 - acc: 0.0097 - mean  
Epoch 1568/5000  
103/103 [=====] - 0s 29us/step - loss: 1281.1925 - acc: 0.0097 - mean  
Epoch 1569/5000  
103/103 [=====] - 0s 29us/step - loss: 1280.3981 - acc: 0.0097 - mean  
Epoch 1570/5000  
103/103 [=====] - 0s 29us/step - loss: 1279.5780 - acc: 0.0097 - mean  
Epoch 1571/5000  
103/103 [=====] - 0s 29us/step - loss: 1278.6984 - acc: 0.0097 - mean  
Epoch 1572/5000  
103/103 [=====] - 0s 29us/step - loss: 1277.8358 - acc: 0.0097 - mean  
Epoch 1573/5000  
103/103 [=====] - 0s 29us/step - loss: 1277.0182 - acc: 0.0000e+00 - r  
Epoch 1574/5000  
103/103 [=====] - 0s 29us/step - loss: 1276.1854 - acc: 0.0000e+00 - r  
Epoch 1575/5000  
103/103 [=====] - 0s 29us/step - loss: 1275.3663 - acc: 0.0000e+00 - r  
Epoch 1576/5000  
103/103 [=====] - 0s 39us/step - loss: 1274.5312 - acc: 0.0000e+00 - r  
Epoch 1577/5000  
103/103 [=====] - 0s 29us/step - loss: 1273.6644 - acc: 0.0000e+00 - r  
Epoch 1578/5000  
103/103 [=====] - 0s 29us/step - loss: 1272.8899 - acc: 0.0000e+00 - r  
Epoch 1579/5000  
103/103 [=====] - 0s 29us/step - loss: 1272.0486 - acc: 0.0000e+00 - r  
Epoch 1580/5000  
103/103 [=====] - 0s 39us/step - loss: 1271.2219 - acc: 0.0000e+00 - r  
Epoch 1581/5000  
103/103 [=====] - 0s 29us/step - loss: 1270.3926 - acc: 0.0000e+00 - r  
Epoch 1582/5000  
103/103 [=====] - 0s 29us/step - loss: 1269.5597 - acc: 0.0000e+00 - r  
Epoch 1583/5000  
103/103 [=====] - 0s 29us/step - loss: 1268.7676 - acc: 0.0000e+00 - r  
Epoch 1584/5000  
103/103 [=====] - 0s 39us/step - loss: 1267.9674 - acc: 0.0000e+00 - r  
Epoch 1585/5000  
103/103 [=====] - 0s 29us/step - loss: 1267.1222 - acc: 0.0000e+00 - r



Epoch 1586/5000  
103/103 [=====] - 0s 39us/step - loss: 1266.2729 - acc: 0.0000e+00 - r  
Epoch 1587/5000  
103/103 [=====] - 0s 19us/step - loss: 1265.4802 - acc: 0.0000e+00 - r  
Epoch 1588/5000  
103/103 [=====] - 0s 29us/step - loss: 1264.6710 - acc: 0.0000e+00 - r  
Epoch 1589/5000  
103/103 [=====] - 0s 39us/step - loss: 1263.9236 - acc: 0.0000e+00 - r  
Epoch 1590/5000  
103/103 [=====] - 0s 19us/step - loss: 1263.1039 - acc: 0.0000e+00 - r  
Epoch 1591/5000  
103/103 [=====] - 0s 29us/step - loss: 1262.2341 - acc: 0.0097 - mean  
Epoch 1592/5000  
103/103 [=====] - 0s 29us/step - loss: 1261.4862 - acc: 0.0097 - mean  
Epoch 1593/5000  
103/103 [=====] - 0s 39us/step - loss: 1260.7164 - acc: 0.0097 - mean  
Epoch 1594/5000  
103/103 [=====] - 0s 29us/step - loss: 1259.8805 - acc: 0.0097 - mean  
Epoch 1595/5000  
103/103 [=====] - 0s 29us/step - loss: 1259.0793 - acc: 0.0097 - mean  
Epoch 1596/5000  
103/103 [=====] - 0s 29us/step - loss: 1258.2354 - acc: 0.0097 - mean  
Epoch 1597/5000  
103/103 [=====] - 0s 29us/step - loss: 1257.4014 - acc: 0.0097 - mean  
Epoch 1598/5000  
103/103 [=====] - 0s 29us/step - loss: 1256.5338 - acc: 0.0097 - mean  
Epoch 1599/5000  
103/103 [=====] - 0s 29us/step - loss: 1255.7080 - acc: 0.0097 - mean  
Epoch 1600/5000  
103/103 [=====] - 0s 29us/step - loss: 1254.8275 - acc: 0.0194 - mean  
Epoch 1601/5000  
103/103 [=====] - 0s 29us/step - loss: 1253.9159 - acc: 0.0194 - mean  
Epoch 1602/5000  
103/103 [=====] - 0s 39us/step - loss: 1253.0577 - acc: 0.0194 - mean  
Epoch 1603/5000  
103/103 [=====] - 0s 29us/step - loss: 1252.1150 - acc: 0.0194 - mean  
Epoch 1604/5000  
103/103 [=====] - 0s 39us/step - loss: 1251.2491 - acc: 0.0194 - mean  
Epoch 1605/5000  
103/103 [=====] - 0s 29us/step - loss: 1250.3785 - acc: 0.0194 - mean  
Epoch 1606/5000  
103/103 [=====] - 0s 39us/step - loss: 1249.4524 - acc: 0.0194 - mean  
Epoch 1607/5000  
103/103 [=====] - 0s 29us/step - loss: 1248.5085 - acc: 0.0194 - mean  
Epoch 1608/5000  
103/103 [=====] - 0s 29us/step - loss: 1247.6152 - acc: 0.0194 - mean  
Epoch 1609/5000  
103/103 [=====] - 0s 29us/step - loss: 1246.7186 - acc: 0.0194 - mean

Epoch 1610/5000  
103/103 [=====] - 0s 29us/step - loss: 1245.7192 - acc: 0.0194 - mean.  
Epoch 1611/5000  
103/103 [=====] - 0s 39us/step - loss: 1244.6765 - acc: 0.0291 - mean.  
Epoch 1612/5000  
103/103 [=====] - 0s 29us/step - loss: 1243.5846 - acc: 0.0291 - mean.  
Epoch 1613/5000  
103/103 [=====] - 0s 29us/step - loss: 1242.5088 - acc: 0.0291 - mean.  
Epoch 1614/5000  
103/103 [=====] - 0s 29us/step - loss: 1241.4286 - acc: 0.0291 - mean.  
Epoch 1615/5000  
103/103 [=====] - 0s 29us/step - loss: 1240.3448 - acc: 0.0291 - mean.  
Epoch 1616/5000  
103/103 [=====] - 0s 29us/step - loss: 1239.2871 - acc: 0.0194 - mean.  
Epoch 1617/5000  
103/103 [=====] - 0s 29us/step - loss: 1238.2046 - acc: 0.0291 - mean.  
Epoch 1618/5000  
103/103 [=====] - 0s 39us/step - loss: 1237.1027 - acc: 0.0291 - mean.  
Epoch 1619/5000  
103/103 [=====] - 0s 39us/step - loss: 1236.3518 - acc: 0.0291 - mean.  
Epoch 1620/5000  
103/103 [=====] - 0s 49us/step - loss: 1235.5343 - acc: 0.0291 - mean.  
Epoch 1621/5000  
103/103 [=====] - 0s 39us/step - loss: 1234.5549 - acc: 0.0291 - mean.  
Epoch 1622/5000  
103/103 [=====] - 0s 39us/step - loss: 1233.6788 - acc: 0.0291 - mean.  
Epoch 1623/5000  
103/103 [=====] - 0s 39us/step - loss: 1232.7391 - acc: 0.0291 - mean.  
Epoch 1624/5000  
103/103 [=====] - 0s 39us/step - loss: 1231.7949 - acc: 0.0291 - mean.  
Epoch 1625/5000  
103/103 [=====] - 0s 29us/step - loss: 1230.8306 - acc: 0.0291 - mean.  
Epoch 1626/5000  
103/103 [=====] - 0s 29us/step - loss: 1229.8619 - acc: 0.0291 - mean.  
Epoch 1627/5000  
103/103 [=====] - 0s 39us/step - loss: 1228.9082 - acc: 0.0291 - mean.  
Epoch 1628/5000  
103/103 [=====] - 0s 39us/step - loss: 1227.9332 - acc: 0.0291 - mean.  
Epoch 1629/5000  
103/103 [=====] - 0s 29us/step - loss: 1226.9404 - acc: 0.0291 - mean.  
Epoch 1630/5000  
103/103 [=====] - 0s 29us/step - loss: 1225.9392 - acc: 0.0291 - mean.  
Epoch 1631/5000  
103/103 [=====] - 0s 39us/step - loss: 1225.0598 - acc: 0.0291 - mean.  
Epoch 1632/5000  
103/103 [=====] - 0s 29us/step - loss: 1224.2152 - acc: 0.0291 - mean.  
Epoch 1633/5000  
103/103 [=====] - 0s 29us/step - loss: 1223.3467 - acc: 0.0291 - mean.

Epoch 1634/5000  
103/103 [=====] - 0s 29us/step - loss: 1222.4282 - acc: 0.0291 - mean.  
Epoch 1635/5000  
103/103 [=====] - 0s 29us/step - loss: 1221.5526 - acc: 0.0291 - mean.  
Epoch 1636/5000  
103/103 [=====] - 0s 29us/step - loss: 1220.6553 - acc: 0.0291 - mean.  
Epoch 1637/5000  
103/103 [=====] - 0s 29us/step - loss: 1219.7262 - acc: 0.0291 - mean.  
Epoch 1638/5000  
103/103 [=====] - 0s 29us/step - loss: 1218.8345 - acc: 0.0291 - mean.  
Epoch 1639/5000  
103/103 [=====] - 0s 29us/step - loss: 1217.9061 - acc: 0.0291 - mean.  
Epoch 1640/5000  
103/103 [=====] - 0s 29us/step - loss: 1216.9987 - acc: 0.0291 - mean.  
Epoch 1641/5000  
103/103 [=====] - 0s 29us/step - loss: 1216.1349 - acc: 0.0194 - mean.  
Epoch 1642/5000  
103/103 [=====] - 0s 29us/step - loss: 1215.3076 - acc: 0.0194 - mean.  
Epoch 1643/5000  
103/103 [=====] - 0s 39us/step - loss: 1214.4467 - acc: 0.0194 - mean.  
Epoch 1644/5000  
103/103 [=====] - 0s 29us/step - loss: 1213.5773 - acc: 0.0194 - mean.  
Epoch 1645/5000  
103/103 [=====] - 0s 39us/step - loss: 1212.6838 - acc: 0.0194 - mean.  
Epoch 1646/5000  
103/103 [=====] - 0s 29us/step - loss: 1211.8170 - acc: 0.0194 - mean.  
Epoch 1647/5000  
103/103 [=====] - 0s 39us/step - loss: 1210.9786 - acc: 0.0194 - mean.  
Epoch 1648/5000  
103/103 [=====] - 0s 29us/step - loss: 1210.1451 - acc: 0.0194 - mean.  
Epoch 1649/5000  
103/103 [=====] - 0s 39us/step - loss: 1209.3340 - acc: 0.0097 - mean.  
Epoch 1650/5000  
103/103 [=====] - 0s 29us/step - loss: 1208.4635 - acc: 0.0194 - mean.  
Epoch 1651/5000  
103/103 [=====] - 0s 29us/step - loss: 1207.6570 - acc: 0.0194 - mean.  
Epoch 1652/5000  
103/103 [=====] - 0s 39us/step - loss: 1206.8154 - acc: 0.0194 - mean.  
Epoch 1653/5000  
103/103 [=====] - 0s 29us/step - loss: 1206.0243 - acc: 0.0194 - mean.  
Epoch 1654/5000  
103/103 [=====] - 0s 39us/step - loss: 1205.1948 - acc: 0.0194 - mean.  
Epoch 1655/5000  
103/103 [=====] - 0s 29us/step - loss: 1204.3893 - acc: 0.0194 - mean.  
Epoch 1656/5000  
103/103 [=====] - 0s 29us/step - loss: 1203.5708 - acc: 0.0194 - mean.  
Epoch 1657/5000  
103/103 [=====] - 0s 29us/step - loss: 1202.7311 - acc: 0.0194 - mean.

Epoch 1658/5000  
103/103 [=====] - 0s 39us/step - loss: 1201.8683 - acc: 0.0194 - mean.  
Epoch 1659/5000  
103/103 [=====] - 0s 29us/step - loss: 1201.0634 - acc: 0.0194 - mean.  
Epoch 1660/5000  
103/103 [=====] - 0s 39us/step - loss: 1200.3080 - acc: 0.0194 - mean.  
Epoch 1661/5000  
103/103 [=====] - 0s 29us/step - loss: 1199.4313 - acc: 0.0194 - mean.  
Epoch 1662/5000  
103/103 [=====] - 0s 29us/step - loss: 1198.6241 - acc: 0.0194 - mean.  
Epoch 1663/5000  
103/103 [=====] - 0s 39us/step - loss: 1197.8369 - acc: 0.0291 - mean.  
Epoch 1664/5000  
103/103 [=====] - 0s 29us/step - loss: 1197.0461 - acc: 0.0291 - mean.  
Epoch 1665/5000  
103/103 [=====] - 0s 29us/step - loss: 1196.2633 - acc: 0.0388 - mean.  
Epoch 1666/5000  
103/103 [=====] - 0s 39us/step - loss: 1195.4652 - acc: 0.0388 - mean.  
Epoch 1667/5000  
103/103 [=====] - 0s 29us/step - loss: 1194.7004 - acc: 0.0388 - mean.  
Epoch 1668/5000  
103/103 [=====] - 0s 39us/step - loss: 1193.9612 - acc: 0.0388 - mean.  
Epoch 1669/5000  
103/103 [=====] - 0s 29us/step - loss: 1193.1986 - acc: 0.0388 - mean.  
Epoch 1670/5000  
103/103 [=====] - 0s 29us/step - loss: 1192.4264 - acc: 0.0388 - mean.  
Epoch 1671/5000  
103/103 [=====] - 0s 29us/step - loss: 1191.6322 - acc: 0.0388 - mean.  
Epoch 1672/5000  
103/103 [=====] - 0s 29us/step - loss: 1190.8477 - acc: 0.0388 - mean.  
Epoch 1673/5000  
103/103 [=====] - 0s 39us/step - loss: 1190.1343 - acc: 0.0388 - mean.  
Epoch 1674/5000  
103/103 [=====] - 0s 29us/step - loss: 1189.3849 - acc: 0.0388 - mean.  
Epoch 1675/5000  
103/103 [=====] - 0s 29us/step - loss: 1188.5332 - acc: 0.0388 - mean.  
Epoch 1676/5000  
103/103 [=====] - 0s 29us/step - loss: 1187.7938 - acc: 0.0291 - mean.  
Epoch 1677/5000  
103/103 [=====] - 0s 29us/step - loss: 1187.0942 - acc: 0.0291 - mean.  
Epoch 1678/5000  
103/103 [=====] - 0s 29us/step - loss: 1186.3021 - acc: 0.0291 - mean.  
Epoch 1679/5000  
103/103 [=====] - 0s 29us/step - loss: 1185.5422 - acc: 0.0291 - mean.  
Epoch 1680/5000  
103/103 [=====] - 0s 29us/step - loss: 1184.7479 - acc: 0.0291 - mean.  
Epoch 1681/5000  
103/103 [=====] - 0s 39us/step - loss: 1183.9426 - acc: 0.0291 - mean.

Epoch 1682/5000  
103/103 [=====] - 0s 29us/step - loss: 1183.1680 - acc: 0.0291 - mean.  
Epoch 1683/5000  
103/103 [=====] - 0s 29us/step - loss: 1182.4154 - acc: 0.0291 - mean.  
Epoch 1684/5000  
103/103 [=====] - 0s 29us/step - loss: 1181.6356 - acc: 0.0291 - mean.  
Epoch 1685/5000  
103/103 [=====] - 0s 29us/step - loss: 1180.8845 - acc: 0.0291 - mean.  
Epoch 1686/5000  
103/103 [=====] - 0s 29us/step - loss: 1180.1235 - acc: 0.0291 - mean.  
Epoch 1687/5000  
103/103 [=====] - 0s 29us/step - loss: 1179.3417 - acc: 0.0194 - mean.  
Epoch 1688/5000  
103/103 [=====] - 0s 29us/step - loss: 1178.5790 - acc: 0.0194 - mean.  
Epoch 1689/5000  
103/103 [=====] - 0s 29us/step - loss: 1177.8671 - acc: 0.0194 - mean.  
Epoch 1690/5000  
103/103 [=====] - 0s 29us/step - loss: 1177.0912 - acc: 0.0097 - mean.  
Epoch 1691/5000  
103/103 [=====] - 0s 29us/step - loss: 1176.3274 - acc: 0.0097 - mean.  
Epoch 1692/5000  
103/103 [=====] - 0s 39us/step - loss: 1175.5360 - acc: 0.0097 - mean.  
Epoch 1693/5000  
103/103 [=====] - 0s 29us/step - loss: 1174.8152 - acc: 0.0097 - mean.  
Epoch 1694/5000  
103/103 [=====] - 0s 39us/step - loss: 1174.0219 - acc: 0.0097 - mean.  
Epoch 1695/5000  
103/103 [=====] - 0s 29us/step - loss: 1173.2330 - acc: 0.0097 - mean.  
Epoch 1696/5000  
103/103 [=====] - 0s 29us/step - loss: 1172.5027 - acc: 0.0097 - mean.  
Epoch 1697/5000  
103/103 [=====] - 0s 29us/step - loss: 1171.7910 - acc: 0.0097 - mean.  
Epoch 1698/5000  
103/103 [=====] - 0s 29us/step - loss: 1170.9819 - acc: 0.0097 - mean.  
Epoch 1699/5000  
103/103 [=====] - 0s 29us/step - loss: 1170.2341 - acc: 0.0097 - mean.  
Epoch 1700/5000  
103/103 [=====] - 0s 29us/step - loss: 1169.4902 - acc: 0.0097 - mean.  
Epoch 1701/5000  
103/103 [=====] - 0s 29us/step - loss: 1168.7223 - acc: 0.0097 - mean.  
Epoch 1702/5000  
103/103 [=====] - 0s 29us/step - loss: 1168.0072 - acc: 0.0097 - mean.  
Epoch 1703/5000  
103/103 [=====] - 0s 29us/step - loss: 1167.2516 - acc: 0.0097 - mean.  
Epoch 1704/5000  
103/103 [=====] - 0s 29us/step - loss: 1166.5177 - acc: 0.0097 - mean.  
Epoch 1705/5000  
103/103 [=====] - 0s 39us/step - loss: 1165.7634 - acc: 0.0097 - mean.

Epoch 1706/5000  
103/103 [=====] - 0s 29us/step - loss: 1165.0128 - acc: 0.0097 - mean  
Epoch 1707/5000  
103/103 [=====] - 0s 29us/step - loss: 1164.2603 - acc: 0.0097 - mean  
Epoch 1708/5000  
103/103 [=====] - 0s 29us/step - loss: 1163.5134 - acc: 0.0097 - mean  
Epoch 1709/5000  
103/103 [=====] - 0s 29us/step - loss: 1162.7599 - acc: 0.0097 - mean  
Epoch 1710/5000  
103/103 [=====] - 0s 29us/step - loss: 1162.0453 - acc: 0.0097 - mean  
Epoch 1711/5000  
103/103 [=====] - 0s 29us/step - loss: 1161.3337 - acc: 0.0097 - mean  
Epoch 1712/5000  
103/103 [=====] - 0s 29us/step - loss: 1160.6134 - acc: 0.0000e+00 - r  
Epoch 1713/5000  
103/103 [=====] - 0s 29us/step - loss: 1159.8674 - acc: 0.0000e+00 - r  
Epoch 1714/5000  
103/103 [=====] - 0s 29us/step - loss: 1159.0859 - acc: 0.0000e+00 - r  
Epoch 1715/5000  
103/103 [=====] - 0s 39us/step - loss: 1158.3619 - acc: 0.0000e+00 - r  
Epoch 1716/5000  
103/103 [=====] - 0s 29us/step - loss: 1157.6475 - acc: 0.0000e+00 - r  
Epoch 1717/5000  
103/103 [=====] - 0s 29us/step - loss: 1156.8799 - acc: 0.0000e+00 - r  
Epoch 1718/5000  
103/103 [=====] - 0s 29us/step - loss: 1156.2026 - acc: 0.0000e+00 - r  
Epoch 1719/5000  
103/103 [=====] - 0s 39us/step - loss: 1155.4946 - acc: 0.0000e+00 - r  
Epoch 1720/5000  
103/103 [=====] - 0s 29us/step - loss: 1154.7517 - acc: 0.0000e+00 - r  
Epoch 1721/5000  
103/103 [=====] - 0s 39us/step - loss: 1154.0144 - acc: 0.0000e+00 - r  
Epoch 1722/5000  
103/103 [=====] - 0s 29us/step - loss: 1153.2659 - acc: 0.0000e+00 - r  
Epoch 1723/5000  
103/103 [=====] - 0s 29us/step - loss: 1152.6079 - acc: 0.0000e+00 - r  
Epoch 1724/5000  
103/103 [=====] - 0s 29us/step - loss: 1151.8567 - acc: 0.0000e+00 - r  
Epoch 1725/5000  
103/103 [=====] - 0s 39us/step - loss: 1151.1245 - acc: 0.0000e+00 - r  
Epoch 1726/5000  
103/103 [=====] - 0s 29us/step - loss: 1150.3832 - acc: 0.0000e+00 - r  
Epoch 1727/5000  
103/103 [=====] - 0s 19us/step - loss: 1149.6870 - acc: 0.0000e+00 - r  
Epoch 1728/5000  
103/103 [=====] - 0s 29us/step - loss: 1148.9911 - acc: 0.0000e+00 - r  
Epoch 1729/5000  
103/103 [=====] - 0s 29us/step - loss: 1148.2522 - acc: 0.0000e+00 - r

Epoch 1730/5000  
103/103 [=====] - 0s 39us/step - loss: 1147.5265 - acc: 0.0000e+00 - r  
Epoch 1731/5000  
103/103 [=====] - 0s 29us/step - loss: 1146.8367 - acc: 0.0000e+00 - r  
Epoch 1732/5000  
103/103 [=====] - 0s 29us/step - loss: 1146.1398 - acc: 0.0000e+00 - r  
Epoch 1733/5000  
103/103 [=====] - 0s 29us/step - loss: 1145.4302 - acc: 0.0000e+00 - r  
Epoch 1734/5000  
103/103 [=====] - 0s 29us/step - loss: 1144.7810 - acc: 0.0000e+00 - r  
Epoch 1735/5000  
103/103 [=====] - 0s 29us/step - loss: 1144.0200 - acc: 0.0000e+00 - r  
Epoch 1736/5000  
103/103 [=====] - 0s 29us/step - loss: 1143.3108 - acc: 0.0000e+00 - r  
Epoch 1737/5000  
103/103 [=====] - 0s 29us/step - loss: 1142.6605 - acc: 0.0000e+00 - r  
Epoch 1738/5000  
103/103 [=====] - 0s 29us/step - loss: 1141.9911 - acc: 0.0000e+00 - r  
Epoch 1739/5000  
103/103 [=====] - 0s 29us/step - loss: 1141.2760 - acc: 0.0000e+00 - r  
Epoch 1740/5000  
103/103 [=====] - 0s 29us/step - loss: 1140.5767 - acc: 0.0000e+00 - r  
Epoch 1741/5000  
103/103 [=====] - 0s 29us/step - loss: 1139.8517 - acc: 0.0000e+00 - r  
Epoch 1742/5000  
103/103 [=====] - 0s 19us/step - loss: 1139.1068 - acc: 0.0000e+00 - r  
Epoch 1743/5000  
103/103 [=====] - 0s 29us/step - loss: 1138.4457 - acc: 0.0000e+00 - r  
Epoch 1744/5000  
103/103 [=====] - 0s 29us/step - loss: 1137.7433 - acc: 0.0000e+00 - r  
Epoch 1745/5000  
103/103 [=====] - 0s 29us/step - loss: 1137.0538 - acc: 0.0000e+00 - r  
Epoch 1746/5000  
103/103 [=====] - 0s 29us/step - loss: 1136.3503 - acc: 0.0000e+00 - r  
Epoch 1747/5000  
103/103 [=====] - 0s 29us/step - loss: 1135.7087 - acc: 0.0000e+00 - r  
Epoch 1748/5000  
103/103 [=====] - 0s 29us/step - loss: 1135.0017 - acc: 0.0000e+00 - r  
Epoch 1749/5000  
103/103 [=====] - 0s 29us/step - loss: 1134.3002 - acc: 0.0000e+00 - r  
Epoch 1750/5000  
103/103 [=====] - 0s 29us/step - loss: 1133.5864 - acc: 0.0000e+00 - r  
Epoch 1751/5000  
103/103 [=====] - 0s 29us/step - loss: 1132.9216 - acc: 0.0000e+00 - r  
Epoch 1752/5000  
103/103 [=====] - 0s 29us/step - loss: 1132.2164 - acc: 0.0000e+00 - r  
Epoch 1753/5000  
103/103 [=====] - 0s 29us/step - loss: 1131.5159 - acc: 0.0000e+00 - r

Epoch 1754/5000  
103/103 [=====] - 0s 29us/step - loss: 1130.8594 - acc: 0.0000e+00 - r  
Epoch 1755/5000  
103/103 [=====] - 0s 29us/step - loss: 1130.1857 - acc: 0.0000e+00 - r  
Epoch 1756/5000  
103/103 [=====] - 0s 29us/step - loss: 1129.5452 - acc: 0.0000e+00 - r  
Epoch 1757/5000  
103/103 [=====] - 0s 39us/step - loss: 1128.8484 - acc: 0.0000e+00 - r  
Epoch 1758/5000  
103/103 [=====] - 0s 29us/step - loss: 1128.1642 - acc: 0.0000e+00 - r  
Epoch 1759/5000  
103/103 [=====] - 0s 19us/step - loss: 1127.5061 - acc: 0.0000e+00 - r  
Epoch 1760/5000  
103/103 [=====] - 0s 29us/step - loss: 1126.8159 - acc: 0.0000e+00 - r  
Epoch 1761/5000  
103/103 [=====] - 0s 29us/step - loss: 1126.1261 - acc: 0.0000e+00 - r  
Epoch 1762/5000  
103/103 [=====] - 0s 29us/step - loss: 1125.4532 - acc: 0.0000e+00 - r  
Epoch 1763/5000  
103/103 [=====] - 0s 29us/step - loss: 1124.8079 - acc: 0.0000e+00 - r  
Epoch 1764/5000  
103/103 [=====] - 0s 29us/step - loss: 1124.1260 - acc: 0.0000e+00 - r  
Epoch 1765/5000  
103/103 [=====] - 0s 29us/step - loss: 1123.4388 - acc: 0.0000e+00 - r  
Epoch 1766/5000  
103/103 [=====] - 0s 29us/step - loss: 1122.7898 - acc: 0.0000e+00 - r  
Epoch 1767/5000  
103/103 [=====] - 0s 39us/step - loss: 1122.1377 - acc: 0.0000e+00 - r  
Epoch 1768/5000  
103/103 [=====] - 0s 29us/step - loss: 1121.4987 - acc: 0.0097 - mean  
Epoch 1769/5000  
103/103 [=====] - 0s 29us/step - loss: 1120.8397 - acc: 0.0097 - mean  
Epoch 1770/5000  
103/103 [=====] - 0s 29us/step - loss: 1120.1681 - acc: 0.0097 - mean  
Epoch 1771/5000  
103/103 [=====] - 0s 39us/step - loss: 1119.4871 - acc: 0.0097 - mean  
Epoch 1772/5000  
103/103 [=====] - 0s 39us/step - loss: 1118.7968 - acc: 0.0194 - mean  
Epoch 1773/5000  
103/103 [=====] - 0s 29us/step - loss: 1118.1765 - acc: 0.0194 - mean  
Epoch 1774/5000  
103/103 [=====] - 0s 29us/step - loss: 1117.5364 - acc: 0.0194 - mean  
Epoch 1775/5000  
103/103 [=====] - 0s 29us/step - loss: 1116.8352 - acc: 0.0194 - mean  
Epoch 1776/5000  
103/103 [=====] - 0s 29us/step - loss: 1116.1879 - acc: 0.0194 - mean  
Epoch 1777/5000  
103/103 [=====] - 0s 39us/step - loss: 1115.5592 - acc: 0.0194 - mean



Epoch 1778/5000  
103/103 [=====] - 0s 29us/step - loss: 1114.9218 - acc: 0.0194 - mean.  
Epoch 1779/5000  
103/103 [=====] - 0s 29us/step - loss: 1114.2308 - acc: 0.0291 - mean.  
Epoch 1780/5000  
103/103 [=====] - 0s 29us/step - loss: 1113.5640 - acc: 0.0291 - mean.  
Epoch 1781/5000  
103/103 [=====] - 0s 29us/step - loss: 1112.9579 - acc: 0.0291 - mean.  
Epoch 1782/5000  
103/103 [=====] - 0s 29us/step - loss: 1112.2897 - acc: 0.0291 - mean.  
Epoch 1783/5000  
103/103 [=====] - 0s 29us/step - loss: 1111.5966 - acc: 0.0291 - mean.  
Epoch 1784/5000  
103/103 [=====] - 0s 29us/step - loss: 1110.9735 - acc: 0.0291 - mean.  
Epoch 1785/5000  
103/103 [=====] - 0s 29us/step - loss: 1110.3492 - acc: 0.0291 - mean.  
Epoch 1786/5000  
103/103 [=====] - 0s 29us/step - loss: 1109.6876 - acc: 0.0291 - mean.  
Epoch 1787/5000  
103/103 [=====] - 0s 39us/step - loss: 1109.0125 - acc: 0.0291 - mean.  
Epoch 1788/5000  
103/103 [=====] - 0s 29us/step - loss: 1108.3252 - acc: 0.0291 - mean.  
Epoch 1789/5000  
103/103 [=====] - 0s 39us/step - loss: 1107.6417 - acc: 0.0291 - mean.  
Epoch 1790/5000  
103/103 [=====] - 0s 29us/step - loss: 1107.0280 - acc: 0.0291 - mean.  
Epoch 1791/5000  
103/103 [=====] - 0s 29us/step - loss: 1106.3289 - acc: 0.0291 - mean.  
Epoch 1792/5000  
103/103 [=====] - 0s 29us/step - loss: 1105.6921 - acc: 0.0291 - mean.  
Epoch 1793/5000  
103/103 [=====] - 0s 29us/step - loss: 1105.0542 - acc: 0.0291 - mean.  
Epoch 1794/5000  
103/103 [=====] - 0s 29us/step - loss: 1104.4043 - acc: 0.0291 - mean.  
Epoch 1795/5000  
103/103 [=====] - 0s 29us/step - loss: 1103.7317 - acc: 0.0291 - mean.  
Epoch 1796/5000  
103/103 [=====] - 0s 39us/step - loss: 1103.0504 - acc: 0.0291 - mean.  
Epoch 1797/5000  
103/103 [=====] - 0s 39us/step - loss: 1102.3949 - acc: 0.0291 - mean.  
Epoch 1798/5000  
103/103 [=====] - 0s 29us/step - loss: 1101.7473 - acc: 0.0291 - mean.  
Epoch 1799/5000  
103/103 [=====] - 0s 29us/step - loss: 1101.1080 - acc: 0.0291 - mean.  
Epoch 1800/5000  
103/103 [=====] - 0s 39us/step - loss: 1100.4559 - acc: 0.0291 - mean.  
Epoch 1801/5000  
103/103 [=====] - 0s 29us/step - loss: 1099.8383 - acc: 0.0291 - mean.

Epoch 1802/5000  
103/103 [=====] - 0s 39us/step - loss: 1099.2091 - acc: 0.0291 - mean.  
Epoch 1803/5000  
103/103 [=====] - 0s 29us/step - loss: 1098.5209 - acc: 0.0388 - mean.  
Epoch 1804/5000  
103/103 [=====] - 0s 29us/step - loss: 1097.8296 - acc: 0.0388 - mean.  
Epoch 1805/5000  
103/103 [=====] - 0s 19us/step - loss: 1097.1770 - acc: 0.0388 - mean.  
Epoch 1806/5000  
103/103 [=====] - 0s 39us/step - loss: 1096.4988 - acc: 0.0388 - mean.  
Epoch 1807/5000  
103/103 [=====] - 0s 39us/step - loss: 1095.8177 - acc: 0.0388 - mean.  
Epoch 1808/5000  
103/103 [=====] - 0s 29us/step - loss: 1095.2084 - acc: 0.0388 - mean.  
Epoch 1809/5000  
103/103 [=====] - 0s 29us/step - loss: 1094.5588 - acc: 0.0291 - mean.  
Epoch 1810/5000  
103/103 [=====] - 0s 39us/step - loss: 1093.8623 - acc: 0.0485 - mean.  
Epoch 1811/5000  
103/103 [=====] - 0s 29us/step - loss: 1093.2079 - acc: 0.0485 - mean.  
Epoch 1812/5000  
103/103 [=====] - 0s 39us/step - loss: 1092.5782 - acc: 0.0485 - mean.  
Epoch 1813/5000  
103/103 [=====] - 0s 39us/step - loss: 1091.9059 - acc: 0.0485 - mean.  
Epoch 1814/5000  
103/103 [=====] - 0s 29us/step - loss: 1091.2369 - acc: 0.0485 - mean.  
Epoch 1815/5000  
103/103 [=====] - 0s 49us/step - loss: 1090.6022 - acc: 0.0485 - mean.  
Epoch 1816/5000  
103/103 [=====] - 0s 29us/step - loss: 1090.0223 - acc: 0.0485 - mean.  
Epoch 1817/5000  
103/103 [=====] - 0s 39us/step - loss: 1089.4130 - acc: 0.0485 - mean.  
Epoch 1818/5000  
103/103 [=====] - 0s 29us/step - loss: 1088.7449 - acc: 0.0583 - mean.  
Epoch 1819/5000  
103/103 [=====] - 0s 39us/step - loss: 1088.1030 - acc: 0.0583 - mean.  
Epoch 1820/5000  
103/103 [=====] - 0s 29us/step - loss: 1087.5077 - acc: 0.0583 - mean.  
Epoch 1821/5000  
103/103 [=====] - 0s 29us/step - loss: 1086.8979 - acc: 0.0583 - mean.  
Epoch 1822/5000  
103/103 [=====] - 0s 39us/step - loss: 1086.2588 - acc: 0.0485 - mean.  
Epoch 1823/5000  
103/103 [=====] - 0s 29us/step - loss: 1085.6169 - acc: 0.0485 - mean.  
Epoch 1824/5000  
103/103 [=====] - 0s 29us/step - loss: 1085.0067 - acc: 0.0485 - mean.  
Epoch 1825/5000  
103/103 [=====] - 0s 29us/step - loss: 1084.3735 - acc: 0.0485 - mean.

Epoch 1826/5000  
103/103 [=====] - 0s 29us/step - loss: 1083.7319 - acc: 0.0485 - mean.  
Epoch 1827/5000  
103/103 [=====] - 0s 29us/step - loss: 1083.1455 - acc: 0.0388 - mean.  
Epoch 1828/5000  
103/103 [=====] - 0s 29us/step - loss: 1082.5332 - acc: 0.0388 - mean.  
Epoch 1829/5000  
103/103 [=====] - 0s 19us/step - loss: 1081.8906 - acc: 0.0388 - mean.  
Epoch 1830/5000  
103/103 [=====] - 0s 39us/step - loss: 1081.3130 - acc: 0.0291 - mean.  
Epoch 1831/5000  
103/103 [=====] - 0s 29us/step - loss: 1080.6794 - acc: 0.0388 - mean.  
Epoch 1832/5000  
103/103 [=====] - 0s 39us/step - loss: 1080.1298 - acc: 0.0388 - mean.  
Epoch 1833/5000  
103/103 [=====] - 0s 29us/step - loss: 1079.5017 - acc: 0.0388 - mean.  
Epoch 1834/5000  
103/103 [=====] - 0s 29us/step - loss: 1078.8368 - acc: 0.0291 - mean.  
Epoch 1835/5000  
103/103 [=====] - 0s 29us/step - loss: 1078.2698 - acc: 0.0291 - mean.  
Epoch 1836/5000  
103/103 [=====] - 0s 29us/step - loss: 1077.6621 - acc: 0.0291 - mean.  
Epoch 1837/5000  
103/103 [=====] - 0s 29us/step - loss: 1077.0596 - acc: 0.0388 - mean.  
Epoch 1838/5000  
103/103 [=====] - 0s 19us/step - loss: 1076.4785 - acc: 0.0388 - mean.  
Epoch 1839/5000  
103/103 [=====] - 0s 29us/step - loss: 1075.9344 - acc: 0.0388 - mean.  
Epoch 1840/5000  
103/103 [=====] - 0s 29us/step - loss: 1075.3530 - acc: 0.0388 - mean.  
Epoch 1841/5000  
103/103 [=====] - 0s 29us/step - loss: 1074.7336 - acc: 0.0388 - mean.  
Epoch 1842/5000  
103/103 [=====] - 0s 29us/step - loss: 1074.2227 - acc: 0.0388 - mean.  
Epoch 1843/5000  
103/103 [=====] - 0s 29us/step - loss: 1073.6112 - acc: 0.0388 - mean.  
Epoch 1844/5000  
103/103 [=====] - 0s 29us/step - loss: 1073.0081 - acc: 0.0388 - mean.  
Epoch 1845/5000  
103/103 [=====] - 0s 29us/step - loss: 1072.4506 - acc: 0.0388 - mean.  
Epoch 1846/5000  
103/103 [=====] - 0s 29us/step - loss: 1071.8981 - acc: 0.0388 - mean.  
Epoch 1847/5000  
103/103 [=====] - 0s 29us/step - loss: 1071.3335 - acc: 0.0388 - mean.  
Epoch 1848/5000  
103/103 [=====] - 0s 29us/step - loss: 1070.7480 - acc: 0.0388 - mean.  
Epoch 1849/5000  
103/103 [=====] - 0s 39us/step - loss: 1070.1548 - acc: 0.0388 - mean.

Epoch 1850/5000  
103/103 [=====] - 0s 29us/step - loss: 1069.6035 - acc: 0.0388 - mean.  
Epoch 1851/5000  
103/103 [=====] - 0s 29us/step - loss: 1069.0203 - acc: 0.0388 - mean.  
Epoch 1852/5000  
103/103 [=====] - 0s 39us/step - loss: 1068.3817 - acc: 0.0388 - mean.  
Epoch 1853/5000  
103/103 [=====] - 0s 39us/step - loss: 1067.8550 - acc: 0.0388 - mean.  
Epoch 1854/5000  
103/103 [=====] - 0s 39us/step - loss: 1067.3483 - acc: 0.0388 - mean.  
Epoch 1855/5000  
103/103 [=====] - 0s 29us/step - loss: 1066.7783 - acc: 0.0388 - mean.  
Epoch 1856/5000  
103/103 [=====] - 0s 39us/step - loss: 1066.1940 - acc: 0.0388 - mean.  
Epoch 1857/5000  
103/103 [=====] - 0s 29us/step - loss: 1065.5748 - acc: 0.0291 - mean.  
Epoch 1858/5000  
103/103 [=====] - 0s 29us/step - loss: 1065.0555 - acc: 0.0291 - mean.  
Epoch 1859/5000  
103/103 [=====] - 0s 39us/step - loss: 1064.5178 - acc: 0.0291 - mean.  
Epoch 1860/5000  
103/103 [=====] - 0s 29us/step - loss: 1063.9802 - acc: 0.0291 - mean.  
Epoch 1861/5000  
103/103 [=====] - 0s 29us/step - loss: 1063.2877 - acc: 0.0291 - mean.  
Epoch 1862/5000  
103/103 [=====] - 0s 29us/step - loss: 1062.7581 - acc: 0.0291 - mean.  
Epoch 1863/5000  
103/103 [=====] - 0s 29us/step - loss: 1062.1914 - acc: 0.0291 - mean.  
Epoch 1864/5000  
103/103 [=====] - 0s 29us/step - loss: 1061.6174 - acc: 0.0291 - mean.  
Epoch 1865/5000  
103/103 [=====] - 0s 39us/step - loss: 1061.0939 - acc: 0.0291 - mean.  
Epoch 1866/5000  
103/103 [=====] - 0s 39us/step - loss: 1060.5143 - acc: 0.0291 - mean.  
Epoch 1867/5000  
103/103 [=====] - 0s 29us/step - loss: 1059.8883 - acc: 0.0291 - mean.  
Epoch 1868/5000  
103/103 [=====] - 0s 29us/step - loss: 1059.3903 - acc: 0.0291 - mean.  
Epoch 1869/5000  
103/103 [=====] - 0s 29us/step - loss: 1058.8153 - acc: 0.0291 - mean.  
Epoch 1870/5000  
103/103 [=====] - 0s 39us/step - loss: 1058.2175 - acc: 0.0291 - mean.  
Epoch 1871/5000  
103/103 [=====] - 0s 39us/step - loss: 1057.6464 - acc: 0.0291 - mean.  
Epoch 1872/5000  
103/103 [=====] - 0s 29us/step - loss: 1057.0782 - acc: 0.0291 - mean.  
Epoch 1873/5000  
103/103 [=====] - 0s 39us/step - loss: 1056.4895 - acc: 0.0291 - mean.

Epoch 1874/5000  
103/103 [=====] - 0s 39us/step - loss: 1055.9226 - acc: 0.0291 - mean.  
Epoch 1875/5000  
103/103 [=====] - 0s 39us/step - loss: 1055.3749 - acc: 0.0291 - mean.  
Epoch 1876/5000  
103/103 [=====] - 0s 39us/step - loss: 1054.8278 - acc: 0.0291 - mean.  
Epoch 1877/5000  
103/103 [=====] - 0s 39us/step - loss: 1054.2528 - acc: 0.0291 - mean.  
Epoch 1878/5000  
103/103 [=====] - 0s 39us/step - loss: 1053.7040 - acc: 0.0291 - mean.  
Epoch 1879/5000  
103/103 [=====] - 0s 29us/step - loss: 1053.1046 - acc: 0.0291 - mean.  
Epoch 1880/5000  
103/103 [=====] - 0s 29us/step - loss: 1052.5114 - acc: 0.0291 - mean.  
Epoch 1881/5000  
103/103 [=====] - 0s 29us/step - loss: 1052.0095 - acc: 0.0291 - mean.  
Epoch 1882/5000  
103/103 [=====] - 0s 19us/step - loss: 1051.4679 - acc: 0.0291 - mean.  
Epoch 1883/5000  
103/103 [=====] - 0s 39us/step - loss: 1050.8571 - acc: 0.0291 - mean.  
Epoch 1884/5000  
103/103 [=====] - 0s 39us/step - loss: 1050.2883 - acc: 0.0291 - mean.  
Epoch 1885/5000  
103/103 [=====] - 0s 29us/step - loss: 1049.7264 - acc: 0.0291 - mean.  
Epoch 1886/5000  
103/103 [=====] - 0s 19us/step - loss: 1049.1704 - acc: 0.0291 - mean.  
Epoch 1887/5000  
103/103 [=====] - 0s 39us/step - loss: 1048.6255 - acc: 0.0291 - mean.  
Epoch 1888/5000  
103/103 [=====] - 0s 29us/step - loss: 1048.0846 - acc: 0.0291 - mean.  
Epoch 1889/5000  
103/103 [=====] - 0s 29us/step - loss: 1047.5276 - acc: 0.0291 - mean.  
Epoch 1890/5000  
103/103 [=====] - 0s 29us/step - loss: 1046.9917 - acc: 0.0291 - mean.  
Epoch 1891/5000  
103/103 [=====] - 0s 39us/step - loss: 1046.4761 - acc: 0.0291 - mean.  
Epoch 1892/5000  
103/103 [=====] - 0s 29us/step - loss: 1045.9518 - acc: 0.0291 - mean.  
Epoch 1893/5000  
103/103 [=====] - 0s 39us/step - loss: 1045.4037 - acc: 0.0291 - mean.  
Epoch 1894/5000  
103/103 [=====] - 0s 39us/step - loss: 1044.8340 - acc: 0.0291 - mean.  
Epoch 1895/5000  
103/103 [=====] - 0s 29us/step - loss: 1044.3160 - acc: 0.0388 - mean.  
Epoch 1896/5000  
103/103 [=====] - 0s 39us/step - loss: 1043.7833 - acc: 0.0388 - mean.  
Epoch 1897/5000  
103/103 [=====] - 0s 29us/step - loss: 1043.1696 - acc: 0.0388 - mean.

Epoch 1898/5000  
103/103 [=====] - 0s 39us/step - loss: 1042.6139 - acc: 0.0388 - mean.  
Epoch 1899/5000  
103/103 [=====] - 0s 29us/step - loss: 1042.1774 - acc: 0.0388 - mean.  
Epoch 1900/5000  
103/103 [=====] - 0s 39us/step - loss: 1041.6461 - acc: 0.0388 - mean.  
Epoch 1901/5000  
103/103 [=====] - 0s 29us/step - loss: 1040.9941 - acc: 0.0388 - mean.  
Epoch 1902/5000  
103/103 [=====] - 0s 39us/step - loss: 1040.4595 - acc: 0.0388 - mean.  
Epoch 1903/5000  
103/103 [=====] - 0s 29us/step - loss: 1039.9325 - acc: 0.0388 - mean.  
Epoch 1904/5000  
103/103 [=====] - 0s 29us/step - loss: 1039.3743 - acc: 0.0388 - mean.  
Epoch 1905/5000  
103/103 [=====] - 0s 29us/step - loss: 1038.8492 - acc: 0.0388 - mean.  
Epoch 1906/5000  
103/103 [=====] - 0s 29us/step - loss: 1038.2881 - acc: 0.0485 - mean.  
Epoch 1907/5000  
103/103 [=====] - 0s 29us/step - loss: 1037.7701 - acc: 0.0485 - mean.  
Epoch 1908/5000  
103/103 [=====] - 0s 39us/step - loss: 1037.2184 - acc: 0.0485 - mean.  
Epoch 1909/5000  
103/103 [=====] - 0s 29us/step - loss: 1036.6624 - acc: 0.0485 - mean.  
Epoch 1910/5000  
103/103 [=====] - 0s 29us/step - loss: 1036.0947 - acc: 0.0485 - mean.  
Epoch 1911/5000  
103/103 [=====] - 0s 29us/step - loss: 1035.5332 - acc: 0.0485 - mean.  
Epoch 1912/5000  
103/103 [=====] - 0s 29us/step - loss: 1034.9852 - acc: 0.0485 - mean.  
Epoch 1913/5000  
103/103 [=====] - 0s 29us/step - loss: 1034.4189 - acc: 0.0485 - mean.  
Epoch 1914/5000  
103/103 [=====] - 0s 29us/step - loss: 1033.9476 - acc: 0.0583 - mean.  
Epoch 1915/5000  
103/103 [=====] - 0s 29us/step - loss: 1033.4171 - acc: 0.0583 - mean.  
Epoch 1916/5000  
103/103 [=====] - 0s 39us/step - loss: 1032.7960 - acc: 0.0485 - mean.  
Epoch 1917/5000  
103/103 [=====] - 0s 39us/step - loss: 1032.2916 - acc: 0.0485 - mean.  
Epoch 1918/5000  
103/103 [=====] - 0s 39us/step - loss: 1031.7804 - acc: 0.0388 - mean.  
Epoch 1919/5000  
103/103 [=====] - 0s 29us/step - loss: 1031.2793 - acc: 0.0388 - mean.  
Epoch 1920/5000  
103/103 [=====] - 0s 29us/step - loss: 1030.7687 - acc: 0.0388 - mean.  
Epoch 1921/5000  
103/103 [=====] - 0s 29us/step - loss: 1030.2177 - acc: 0.0388 - mean.

Epoch 1922/5000  
103/103 [=====] - 0s 29us/step - loss: 1029.6973 - acc: 0.0388 - mean.  
Epoch 1923/5000  
103/103 [=====] - 0s 29us/step - loss: 1029.1337 - acc: 0.0388 - mean.  
Epoch 1924/5000  
103/103 [=====] - 0s 29us/step - loss: 1028.6404 - acc: 0.0388 - mean.  
Epoch 1925/5000  
103/103 [=====] - 0s 29us/step - loss: 1028.1252 - acc: 0.0388 - mean.  
Epoch 1926/5000  
103/103 [=====] - 0s 39us/step - loss: 1027.5129 - acc: 0.0388 - mean.  
Epoch 1927/5000  
103/103 [=====] - 0s 29us/step - loss: 1027.0421 - acc: 0.0388 - mean.  
Epoch 1928/5000  
103/103 [=====] - 0s 29us/step - loss: 1026.5515 - acc: 0.0388 - mean.  
Epoch 1929/5000  
103/103 [=====] - 0s 29us/step - loss: 1026.0248 - acc: 0.0388 - mean.  
Epoch 1930/5000  
103/103 [=====] - 0s 39us/step - loss: 1025.4974 - acc: 0.0388 - mean.  
Epoch 1931/5000  
103/103 [=====] - 0s 29us/step - loss: 1024.9806 - acc: 0.0388 - mean.  
Epoch 1932/5000  
103/103 [=====] - 0s 39us/step - loss: 1024.4545 - acc: 0.0388 - mean.  
Epoch 1933/5000  
103/103 [=====] - 0s 29us/step - loss: 1023.8981 - acc: 0.0388 - mean.  
Epoch 1934/5000  
103/103 [=====] - 0s 39us/step - loss: 1023.4532 - acc: 0.0388 - mean.  
Epoch 1935/5000  
103/103 [=====] - 0s 29us/step - loss: 1022.9977 - acc: 0.0388 - mean.  
Epoch 1936/5000  
103/103 [=====] - 0s 39us/step - loss: 1022.3838 - acc: 0.0388 - mean.  
Epoch 1937/5000  
103/103 [=====] - 0s 29us/step - loss: 1021.8513 - acc: 0.0388 - mean.  
Epoch 1938/5000  
103/103 [=====] - 0s 29us/step - loss: 1021.3635 - acc: 0.0388 - mean.  
Epoch 1939/5000  
103/103 [=====] - 0s 19us/step - loss: 1020.8903 - acc: 0.0388 - mean.  
Epoch 1940/5000  
103/103 [=====] - 0s 29us/step - loss: 1020.3817 - acc: 0.0388 - mean.  
Epoch 1941/5000  
103/103 [=====] - 0s 29us/step - loss: 1019.8544 - acc: 0.0388 - mean.  
Epoch 1942/5000  
103/103 [=====] - 0s 29us/step - loss: 1019.3147 - acc: 0.0388 - mean.  
Epoch 1943/5000  
103/103 [=====] - 0s 19us/step - loss: 1018.7790 - acc: 0.0388 - mean.  
Epoch 1944/5000  
103/103 [=====] - 0s 29us/step - loss: 1018.3537 - acc: 0.0388 - mean.  
Epoch 1945/5000  
103/103 [=====] - 0s 29us/step - loss: 1017.8526 - acc: 0.0485 - mean.

Epoch 1946/5000  
103/103 [=====] - 0s 29us/step - loss: 1017.2541 - acc: 0.0485 - mean.  
Epoch 1947/5000  
103/103 [=====] - 0s 29us/step - loss: 1016.8105 - acc: 0.0485 - mean.  
Epoch 1948/5000  
103/103 [=====] - 0s 29us/step - loss: 1016.3177 - acc: 0.0485 - mean.  
Epoch 1949/5000  
103/103 [=====] - 0s 29us/step - loss: 1015.8456 - acc: 0.0485 - mean.  
Epoch 1950/5000  
103/103 [=====] - 0s 39us/step - loss: 1015.3504 - acc: 0.0485 - mean.  
Epoch 1951/5000  
103/103 [=====] - 0s 39us/step - loss: 1014.8378 - acc: 0.0485 - mean.  
Epoch 1952/5000  
103/103 [=====] - 0s 29us/step - loss: 1014.3221 - acc: 0.0485 - mean.  
Epoch 1953/5000  
103/103 [=====] - 0s 39us/step - loss: 1013.8054 - acc: 0.0485 - mean.  
Epoch 1954/5000  
103/103 [=====] - 0s 39us/step - loss: 1013.2504 - acc: 0.0485 - mean.  
Epoch 1955/5000  
103/103 [=====] - 0s 29us/step - loss: 1012.7447 - acc: 0.0485 - mean.  
Epoch 1956/5000  
103/103 [=====] - 0s 29us/step - loss: 1012.2335 - acc: 0.0485 - mean.  
Epoch 1957/5000  
103/103 [=====] - 0s 29us/step - loss: 1011.6847 - acc: 0.0485 - mean.  
Epoch 1958/5000  
103/103 [=====] - 0s 29us/step - loss: 1011.1909 - acc: 0.0485 - mean.  
Epoch 1959/5000  
103/103 [=====] - 0s 29us/step - loss: 1010.6728 - acc: 0.0485 - mean.  
Epoch 1960/5000  
103/103 [=====] - 0s 29us/step - loss: 1010.1672 - acc: 0.0485 - mean.  
Epoch 1961/5000  
103/103 [=====] - 0s 29us/step - loss: 1009.6575 - acc: 0.0485 - mean.  
Epoch 1962/5000  
103/103 [=====] - 0s 39us/step - loss: 1009.1402 - acc: 0.0485 - mean.  
Epoch 1963/5000  
103/103 [=====] - 0s 29us/step - loss: 1008.6120 - acc: 0.0583 - mean.  
Epoch 1964/5000  
103/103 [=====] - 0s 29us/step - loss: 1008.1537 - acc: 0.0583 - mean.  
Epoch 1965/5000  
103/103 [=====] - 0s 29us/step - loss: 1007.6397 - acc: 0.0583 - mean.  
Epoch 1966/5000  
103/103 [=====] - 0s 29us/step - loss: 1007.0953 - acc: 0.0583 - mean.  
Epoch 1967/5000  
103/103 [=====] - 0s 29us/step - loss: 1006.6001 - acc: 0.0583 - mean.  
Epoch 1968/5000  
103/103 [=====] - 0s 29us/step - loss: 1006.1000 - acc: 0.0583 - mean.  
Epoch 1969/5000  
103/103 [=====] - 0s 29us/step - loss: 1005.5798 - acc: 0.0583 - mean.



Epoch 1970/5000  
103/103 [=====] - 0s 29us/step - loss: 1005.0887 - acc: 0.0583 - mean\_

Epoch 1971/5000  
103/103 [=====] - 0s 29us/step - loss: 1004.5439 - acc: 0.0583 - mean\_

Epoch 1972/5000  
103/103 [=====] - 0s 39us/step - loss: 1003.9501 - acc: 0.0583 - mean\_

Epoch 1973/5000  
103/103 [=====] - 0s 29us/step - loss: 1003.3737 - acc: 0.0583 - mean\_

Epoch 1974/5000  
103/103 [=====] - 0s 29us/step - loss: 1002.8729 - acc: 0.0583 - mean\_

Epoch 1975/5000  
103/103 [=====] - 0s 29us/step - loss: 1002.1916 - acc: 0.0583 - mean\_

Epoch 1976/5000  
103/103 [=====] - 0s 29us/step - loss: 1001.5792 - acc: 0.0583 - mean\_

Epoch 1977/5000  
103/103 [=====] - 0s 39us/step - loss: 1000.9679 - acc: 0.0680 - mean\_

Epoch 1978/5000  
103/103 [=====] - 0s 29us/step - loss: 1000.3196 - acc: 0.0680 - mean\_

Epoch 1979/5000  
103/103 [=====] - 0s 29us/step - loss: 999.6579 - acc: 0.0680 - mean\_

Epoch 1980/5000  
103/103 [=====] - 0s 29us/step - loss: 999.0279 - acc: 0.0680 - mean\_

Epoch 1981/5000  
103/103 [=====] - 0s 29us/step - loss: 998.3896 - acc: 0.0680 - mean\_

Epoch 1982/5000  
103/103 [=====] - 0s 29us/step - loss: 997.7369 - acc: 0.0680 - mean\_

Epoch 1983/5000  
103/103 [=====] - 0s 29us/step - loss: 997.0884 - acc: 0.0680 - mean\_

Epoch 1984/5000  
103/103 [=====] - 0s 29us/step - loss: 996.4313 - acc: 0.0680 - mean\_

Epoch 1985/5000  
103/103 [=====] - 0s 39us/step - loss: 995.7596 - acc: 0.0680 - mean\_

Epoch 1986/5000  
103/103 [=====] - 0s 29us/step - loss: 995.0801 - acc: 0.0583 - mean\_

Epoch 1987/5000  
103/103 [=====] - 0s 29us/step - loss: 994.4039 - acc: 0.0583 - mean\_

Epoch 1988/5000  
103/103 [=====] - 0s 29us/step - loss: 993.7313 - acc: 0.0583 - mean\_

Epoch 1989/5000  
103/103 [=====] - 0s 29us/step - loss: 993.0646 - acc: 0.0583 - mean\_

Epoch 1990/5000  
103/103 [=====] - 0s 29us/step - loss: 992.4140 - acc: 0.0583 - mean\_

Epoch 1991/5000  
103/103 [=====] - 0s 29us/step - loss: 991.7485 - acc: 0.0583 - mean\_

Epoch 1992/5000  
103/103 [=====] - 0s 39us/step - loss: 991.1176 - acc: 0.0485 - mean\_

Epoch 1993/5000  
103/103 [=====] - 0s 39us/step - loss: 990.4580 - acc: 0.0485 - mean\_

Epoch 1994/5000  
103/103 [=====] - 0s 29us/step - loss: 989.7925 - acc: 0.0485 - mean\_s  
Epoch 1995/5000  
103/103 [=====] - 0s 39us/step - loss: 989.1215 - acc: 0.0485 - mean\_s  
Epoch 1996/5000  
103/103 [=====] - 0s 39us/step - loss: 988.4881 - acc: 0.0388 - mean\_s  
Epoch 1997/5000  
103/103 [=====] - 0s 39us/step - loss: 987.8478 - acc: 0.0388 - mean\_s  
Epoch 1998/5000  
103/103 [=====] - 0s 39us/step - loss: 987.1913 - acc: 0.0388 - mean\_s  
Epoch 1999/5000  
103/103 [=====] - 0s 29us/step - loss: 986.5602 - acc: 0.0388 - mean\_s  
Epoch 2000/5000  
103/103 [=====] - 0s 29us/step - loss: 985.8593 - acc: 0.0388 - mean\_s  
Epoch 2001/5000  
103/103 [=====] - 0s 29us/step - loss: 985.0929 - acc: 0.0388 - mean\_s  
Epoch 2002/5000  
103/103 [=====] - 0s 39us/step - loss: 984.3228 - acc: 0.0388 - mean\_s  
Epoch 2003/5000  
103/103 [=====] - 0s 39us/step - loss: 983.4681 - acc: 0.0388 - mean\_s  
Epoch 2004/5000  
103/103 [=====] - 0s 29us/step - loss: 982.7501 - acc: 0.0388 - mean\_s  
Epoch 2005/5000  
103/103 [=====] - 0s 29us/step - loss: 982.0937 - acc: 0.0388 - mean\_s  
Epoch 2006/5000  
103/103 [=====] - 0s 29us/step - loss: 981.4535 - acc: 0.0388 - mean\_s  
Epoch 2007/5000  
103/103 [=====] - 0s 39us/step - loss: 980.8181 - acc: 0.0485 - mean\_s  
Epoch 2008/5000  
103/103 [=====] - 0s 19us/step - loss: 980.1582 - acc: 0.0485 - mean\_s  
Epoch 2009/5000  
103/103 [=====] - 0s 29us/step - loss: 979.5129 - acc: 0.0485 - mean\_s  
Epoch 2010/5000  
103/103 [=====] - 0s 29us/step - loss: 978.8850 - acc: 0.0485 - mean\_s  
Epoch 2011/5000  
103/103 [=====] - 0s 29us/step - loss: 978.2122 - acc: 0.0485 - mean\_s  
Epoch 2012/5000  
103/103 [=====] - 0s 39us/step - loss: 977.5876 - acc: 0.0485 - mean\_s  
Epoch 2013/5000  
103/103 [=====] - 0s 29us/step - loss: 976.9208 - acc: 0.0485 - mean\_s  
Epoch 2014/5000  
103/103 [=====] - 0s 29us/step - loss: 976.3936 - acc: 0.0485 - mean\_s  
Epoch 2015/5000  
103/103 [=====] - 0s 29us/step - loss: 975.7765 - acc: 0.0485 - mean\_s  
Epoch 2016/5000  
103/103 [=====] - 0s 29us/step - loss: 975.0858 - acc: 0.0485 - mean\_s  
Epoch 2017/5000  
103/103 [=====] - 0s 29us/step - loss: 974.4963 - acc: 0.0485 - mean\_s

Epoch 2018/5000  
103/103 [=====] - 0s 29us/step - loss: 973.8932 - acc: 0.0485 - mean\_s  
Epoch 2019/5000  
103/103 [=====] - 0s 39us/step - loss: 973.2625 - acc: 0.0485 - mean\_s  
Epoch 2020/5000  
103/103 [=====] - 0s 29us/step - loss: 972.6296 - acc: 0.0485 - mean\_s  
Epoch 2021/5000  
103/103 [=====] - 0s 29us/step - loss: 972.0246 - acc: 0.0485 - mean\_s  
Epoch 2022/5000  
103/103 [=====] - 0s 29us/step - loss: 971.4374 - acc: 0.0485 - mean\_s  
Epoch 2023/5000  
103/103 [=====] - 0s 39us/step - loss: 970.8115 - acc: 0.0485 - mean\_s  
Epoch 2024/5000  
103/103 [=====] - 0s 29us/step - loss: 970.1965 - acc: 0.0485 - mean\_s  
Epoch 2025/5000  
103/103 [=====] - 0s 29us/step - loss: 969.5523 - acc: 0.0388 - mean\_s  
Epoch 2026/5000  
103/103 [=====] - 0s 29us/step - loss: 969.0032 - acc: 0.0485 - mean\_s  
Epoch 2027/5000  
103/103 [=====] - 0s 29us/step - loss: 968.3777 - acc: 0.0485 - mean\_s  
Epoch 2028/5000  
103/103 [=====] - 0s 29us/step - loss: 967.7745 - acc: 0.0485 - mean\_s  
Epoch 2029/5000  
103/103 [=====] - 0s 29us/step - loss: 967.1838 - acc: 0.0388 - mean\_s  
Epoch 2030/5000  
103/103 [=====] - 0s 29us/step - loss: 966.5971 - acc: 0.0388 - mean\_s  
Epoch 2031/5000  
103/103 [=====] - 0s 29us/step - loss: 966.0235 - acc: 0.0388 - mean\_s  
Epoch 2032/5000  
103/103 [=====] - 0s 29us/step - loss: 965.4113 - acc: 0.0388 - mean\_s  
Epoch 2033/5000  
103/103 [=====] - 0s 29us/step - loss: 964.8096 - acc: 0.0388 - mean\_s  
Epoch 2034/5000  
103/103 [=====] - 0s 39us/step - loss: 964.2585 - acc: 0.0388 - mean\_s  
Epoch 2035/5000  
103/103 [=====] - 0s 39us/step - loss: 963.6327 - acc: 0.0388 - mean\_s  
Epoch 2036/5000  
103/103 [=====] - 0s 29us/step - loss: 963.0447 - acc: 0.0388 - mean\_s  
Epoch 2037/5000  
103/103 [=====] - 0s 39us/step - loss: 962.4465 - acc: 0.0388 - mean\_s  
Epoch 2038/5000  
103/103 [=====] - 0s 39us/step - loss: 961.8896 - acc: 0.0388 - mean\_s  
Epoch 2039/5000  
103/103 [=====] - 0s 39us/step - loss: 961.3035 - acc: 0.0388 - mean\_s  
Epoch 2040/5000  
103/103 [=====] - 0s 39us/step - loss: 960.7046 - acc: 0.0388 - mean\_s  
Epoch 2041/5000  
103/103 [=====] - 0s 29us/step - loss: 960.1741 - acc: 0.0388 - mean\_s

Epoch 2042/5000  
103/103 [=====] - 0s 29us/step - loss: 959.5945 - acc: 0.0388 - mean\_s  
Epoch 2043/5000  
103/103 [=====] - 0s 39us/step - loss: 958.9863 - acc: 0.0388 - mean\_s  
Epoch 2044/5000  
103/103 [=====] - 0s 29us/step - loss: 958.4377 - acc: 0.0388 - mean\_s  
Epoch 2045/5000  
103/103 [=====] - 0s 29us/step - loss: 957.8821 - acc: 0.0388 - mean\_s  
Epoch 2046/5000  
103/103 [=====] - 0s 39us/step - loss: 957.2963 - acc: 0.0388 - mean\_s  
Epoch 2047/5000  
103/103 [=====] - 0s 29us/step - loss: 956.7338 - acc: 0.0388 - mean\_s  
Epoch 2048/5000  
103/103 [=====] - 0s 29us/step - loss: 956.1642 - acc: 0.0388 - mean\_s  
Epoch 2049/5000  
103/103 [=====] - 0s 29us/step - loss: 955.6549 - acc: 0.0388 - mean\_s  
Epoch 2050/5000  
103/103 [=====] - 0s 39us/step - loss: 955.0237 - acc: 0.0388 - mean\_s  
Epoch 2051/5000  
103/103 [=====] - 0s 29us/step - loss: 954.5020 - acc: 0.0388 - mean\_s  
Epoch 2052/5000  
103/103 [=====] - 0s 29us/step - loss: 953.9740 - acc: 0.0388 - mean\_s  
Epoch 2053/5000  
103/103 [=====] - 0s 29us/step - loss: 953.4093 - acc: 0.0388 - mean\_s  
Epoch 2054/5000  
103/103 [=====] - 0s 29us/step - loss: 952.8648 - acc: 0.0388 - mean\_s  
Epoch 2055/5000  
103/103 [=====] - 0s 29us/step - loss: 952.3034 - acc: 0.0388 - mean\_s  
Epoch 2056/5000  
103/103 [=====] - 0s 39us/step - loss: 951.7054 - acc: 0.0388 - mean\_s  
Epoch 2057/5000  
103/103 [=====] - 0s 29us/step - loss: 951.2261 - acc: 0.0388 - mean\_s  
Epoch 2058/5000  
103/103 [=====] - 0s 39us/step - loss: 950.6480 - acc: 0.0388 - mean\_s  
Epoch 2059/5000  
103/103 [=====] - 0s 29us/step - loss: 950.0091 - acc: 0.0388 - mean\_s  
Epoch 2060/5000  
103/103 [=====] - 0s 29us/step - loss: 949.4833 - acc: 0.0388 - mean\_s  
Epoch 2061/5000  
103/103 [=====] - 0s 29us/step - loss: 948.9406 - acc: 0.0388 - mean\_s  
Epoch 2062/5000  
103/103 [=====] - 0s 29us/step - loss: 948.3779 - acc: 0.0388 - mean\_s  
Epoch 2063/5000  
103/103 [=====] - 0s 39us/step - loss: 947.8013 - acc: 0.0388 - mean\_s  
Epoch 2064/5000  
103/103 [=====] - 0s 29us/step - loss: 947.2334 - acc: 0.0388 - mean\_s  
Epoch 2065/5000  
103/103 [=====] - 0s 39us/step - loss: 946.6688 - acc: 0.0388 - mean\_s

Epoch 2066/5000  
103/103 [=====] - 0s 29us/step - loss: 946.1316 - acc: 0.0388 - mean\_s  
Epoch 2067/5000  
103/103 [=====] - 0s 29us/step - loss: 945.5850 - acc: 0.0388 - mean\_s  
Epoch 2068/5000  
103/103 [=====] - 0s 29us/step - loss: 945.0478 - acc: 0.0485 - mean\_s  
Epoch 2069/5000  
103/103 [=====] - 0s 39us/step - loss: 944.4522 - acc: 0.0485 - mean\_s  
Epoch 2070/5000  
103/103 [=====] - 0s 29us/step - loss: 943.9066 - acc: 0.0485 - mean\_s  
Epoch 2071/5000  
103/103 [=====] - 0s 29us/step - loss: 943.3870 - acc: 0.0485 - mean\_s  
Epoch 2072/5000  
103/103 [=====] - 0s 29us/step - loss: 942.8353 - acc: 0.0485 - mean\_s  
Epoch 2073/5000  
103/103 [=====] - 0s 29us/step - loss: 942.2770 - acc: 0.0485 - mean\_s  
Epoch 2074/5000  
103/103 [=====] - 0s 39us/step - loss: 941.7032 - acc: 0.0485 - mean\_s  
Epoch 2075/5000  
103/103 [=====] - 0s 29us/step - loss: 941.1461 - acc: 0.0485 - mean\_s  
Epoch 2076/5000  
103/103 [=====] - 0s 29us/step - loss: 940.5649 - acc: 0.0583 - mean\_s  
Epoch 2077/5000  
103/103 [=====] - 0s 29us/step - loss: 940.0312 - acc: 0.0583 - mean\_s  
Epoch 2078/5000  
103/103 [=====] - 0s 29us/step - loss: 939.5288 - acc: 0.0583 - mean\_s  
Epoch 2079/5000  
103/103 [=====] - 0s 29us/step - loss: 939.0267 - acc: 0.0583 - mean\_s  
Epoch 2080/5000  
103/103 [=====] - 0s 29us/step - loss: 938.5643 - acc: 0.0583 - mean\_s  
Epoch 2081/5000  
103/103 [=====] - 0s 39us/step - loss: 938.0383 - acc: 0.0583 - mean\_s  
Epoch 2082/5000  
103/103 [=====] - 0s 29us/step - loss: 937.5909 - acc: 0.0583 - mean\_s  
Epoch 2083/5000  
103/103 [=====] - 0s 29us/step - loss: 937.1054 - acc: 0.0583 - mean\_s  
Epoch 2084/5000  
103/103 [=====] - 0s 39us/step - loss: 936.6494 - acc: 0.0583 - mean\_s  
Epoch 2085/5000  
103/103 [=====] - 0s 29us/step - loss: 936.1753 - acc: 0.0583 - mean\_s  
Epoch 2086/5000  
103/103 [=====] - 0s 29us/step - loss: 935.7353 - acc: 0.0583 - mean\_s  
Epoch 2087/5000  
103/103 [=====] - 0s 29us/step - loss: 935.2752 - acc: 0.0583 - mean\_s  
Epoch 2088/5000  
103/103 [=====] - 0s 29us/step - loss: 934.7820 - acc: 0.0583 - mean\_s  
Epoch 2089/5000  
103/103 [=====] - 0s 29us/step - loss: 934.3156 - acc: 0.0583 - mean\_s

Epoch 2090/5000  
103/103 [=====] - 0s 29us/step - loss: 933.8349 - acc: 0.0583 - mean\_s  
Epoch 2091/5000  
103/103 [=====] - 0s 29us/step - loss: 933.3481 - acc: 0.0583 - mean\_s  
Epoch 2092/5000  
103/103 [=====] - 0s 29us/step - loss: 932.9071 - acc: 0.0485 - mean\_s  
Epoch 2093/5000  
103/103 [=====] - 0s 29us/step - loss: 932.4121 - acc: 0.0485 - mean\_s  
Epoch 2094/5000  
103/103 [=====] - 0s 29us/step - loss: 931.9296 - acc: 0.0583 - mean\_s  
Epoch 2095/5000  
103/103 [=====] - 0s 29us/step - loss: 931.4933 - acc: 0.0583 - mean\_s  
Epoch 2096/5000  
103/103 [=====] - 0s 29us/step - loss: 931.0019 - acc: 0.0583 - mean\_s  
Epoch 2097/5000  
103/103 [=====] - 0s 29us/step - loss: 930.5656 - acc: 0.0485 - mean\_s  
Epoch 2098/5000  
103/103 [=====] - 0s 29us/step - loss: 930.0303 - acc: 0.0485 - mean\_s  
Epoch 2099/5000  
103/103 [=====] - 0s 29us/step - loss: 929.5899 - acc: 0.0485 - mean\_s  
Epoch 2100/5000  
103/103 [=====] - 0s 39us/step - loss: 929.1147 - acc: 0.0485 - mean\_s  
Epoch 2101/5000  
103/103 [=====] - 0s 29us/step - loss: 928.6272 - acc: 0.0485 - mean\_s  
Epoch 2102/5000  
103/103 [=====] - 0s 29us/step - loss: 928.1956 - acc: 0.0583 - mean\_s  
Epoch 2103/5000  
103/103 [=====] - 0s 29us/step - loss: 927.7356 - acc: 0.0583 - mean\_s  
Epoch 2104/5000  
103/103 [=====] - 0s 29us/step - loss: 927.2457 - acc: 0.0583 - mean\_s  
Epoch 2105/5000  
103/103 [=====] - 0s 29us/step - loss: 926.8100 - acc: 0.0485 - mean\_s  
Epoch 2106/5000  
103/103 [=====] - 0s 19us/step - loss: 926.2966 - acc: 0.0485 - mean\_s  
Epoch 2107/5000  
103/103 [=====] - 0s 39us/step - loss: 925.8334 - acc: 0.0485 - mean\_s  
Epoch 2108/5000  
103/103 [=====] - 0s 29us/step - loss: 925.4459 - acc: 0.0485 - mean\_s  
Epoch 2109/5000  
103/103 [=====] - 0s 29us/step - loss: 924.9098 - acc: 0.0485 - mean\_s  
Epoch 2110/5000  
103/103 [=====] - 0s 29us/step - loss: 924.4729 - acc: 0.0583 - mean\_s  
Epoch 2111/5000  
103/103 [=====] - 0s 49us/step - loss: 924.0453 - acc: 0.0583 - mean\_s  
Epoch 2112/5000  
103/103 [=====] - 0s 39us/step - loss: 923.5800 - acc: 0.0583 - mean\_s  
Epoch 2113/5000  
103/103 [=====] - 0s 29us/step - loss: 923.0959 - acc: 0.0583 - mean\_s

Epoch 2114/5000  
103/103 [=====] - 0s 39us/step - loss: 922.5944 - acc: 0.0583 - mean\_s  
Epoch 2115/5000  
103/103 [=====] - 0s 39us/step - loss: 922.1266 - acc: 0.0583 - mean\_s  
Epoch 2116/5000  
103/103 [=====] - 0s 39us/step - loss: 921.7072 - acc: 0.0583 - mean\_s  
Epoch 2117/5000  
103/103 [=====] - 0s 39us/step - loss: 921.2183 - acc: 0.0485 - mean\_s  
Epoch 2118/5000  
103/103 [=====] - 0s 49us/step - loss: 920.7375 - acc: 0.0583 - mean\_s  
Epoch 2119/5000  
103/103 [=====] - 0s 39us/step - loss: 920.3231 - acc: 0.0583 - mean\_s  
Epoch 2120/5000  
103/103 [=====] - 0s 39us/step - loss: 919.9075 - acc: 0.0583 - mean\_s  
Epoch 2121/5000  
103/103 [=====] - 0s 29us/step - loss: 919.3902 - acc: 0.0485 - mean\_s  
Epoch 2122/5000  
103/103 [=====] - 0s 29us/step - loss: 918.9145 - acc: 0.0485 - mean\_s  
Epoch 2123/5000  
103/103 [=====] - 0s 29us/step - loss: 918.5192 - acc: 0.0485 - mean\_s  
Epoch 2124/5000  
103/103 [=====] - 0s 29us/step - loss: 918.0321 - acc: 0.0485 - mean\_s  
Epoch 2125/5000  
103/103 [=====] - 0s 29us/step - loss: 917.6235 - acc: 0.0485 - mean\_s  
Epoch 2126/5000  
103/103 [=====] - 0s 39us/step - loss: 917.1598 - acc: 0.0485 - mean\_s  
Epoch 2127/5000  
103/103 [=====] - 0s 29us/step - loss: 916.7220 - acc: 0.0485 - mean\_s  
Epoch 2128/5000  
103/103 [=====] - 0s 39us/step - loss: 916.2906 - acc: 0.0485 - mean\_s  
Epoch 2129/5000  
103/103 [=====] - 0s 29us/step - loss: 915.8533 - acc: 0.0485 - mean\_s  
Epoch 2130/5000  
103/103 [=====] - 0s 29us/step - loss: 915.3931 - acc: 0.0485 - mean\_s  
Epoch 2131/5000  
103/103 [=====] - 0s 29us/step - loss: 914.9049 - acc: 0.0485 - mean\_s  
Epoch 2132/5000  
103/103 [=====] - 0s 29us/step - loss: 914.4186 - acc: 0.0485 - mean\_s  
Epoch 2133/5000  
103/103 [=====] - 0s 29us/step - loss: 913.9791 - acc: 0.0485 - mean\_s  
Epoch 2134/5000  
103/103 [=====] - 0s 39us/step - loss: 913.5152 - acc: 0.0388 - mean\_s  
Epoch 2135/5000  
103/103 [=====] - 0s 29us/step - loss: 913.0404 - acc: 0.0388 - mean\_s  
Epoch 2136/5000  
103/103 [=====] - 0s 29us/step - loss: 912.5737 - acc: 0.0388 - mean\_s  
Epoch 2137/5000  
103/103 [=====] - 0s 29us/step - loss: 912.1367 - acc: 0.0388 - mean\_s

Epoch 2138/5000  
103/103 [=====] - 0s 29us/step - loss: 911.6835 - acc: 0.0388 - mean\_s  
Epoch 2139/5000  
103/103 [=====] - 0s 29us/step - loss: 911.2245 - acc: 0.0388 - mean\_s  
Epoch 2140/5000  
103/103 [=====] - 0s 39us/step - loss: 910.7398 - acc: 0.0291 - mean\_s  
Epoch 2141/5000  
103/103 [=====] - 0s 19us/step - loss: 910.3481 - acc: 0.0291 - mean\_s  
Epoch 2142/5000  
103/103 [=====] - 0s 39us/step - loss: 909.8441 - acc: 0.0194 - mean\_s  
Epoch 2143/5000  
103/103 [=====] - 0s 29us/step - loss: 909.4324 - acc: 0.0194 - mean\_s  
Epoch 2144/5000  
103/103 [=====] - 0s 29us/step - loss: 908.9772 - acc: 0.0291 - mean\_s  
Epoch 2145/5000  
103/103 [=====] - 0s 29us/step - loss: 908.4977 - acc: 0.0388 - mean\_s  
Epoch 2146/5000  
103/103 [=====] - 0s 29us/step - loss: 908.0577 - acc: 0.0388 - mean\_s  
Epoch 2147/5000  
103/103 [=====] - 0s 29us/step - loss: 907.6221 - acc: 0.0388 - mean\_s  
Epoch 2148/5000  
103/103 [=====] - 0s 29us/step - loss: 907.1672 - acc: 0.0388 - mean\_s  
Epoch 2149/5000  
103/103 [=====] - 0s 39us/step - loss: 906.7046 - acc: 0.0291 - mean\_s  
Epoch 2150/5000  
103/103 [=====] - 0s 39us/step - loss: 906.2562 - acc: 0.0291 - mean\_s  
Epoch 2151/5000  
103/103 [=====] - 0s 29us/step - loss: 905.8140 - acc: 0.0291 - mean\_s  
Epoch 2152/5000  
103/103 [=====] - 0s 39us/step - loss: 905.3606 - acc: 0.0291 - mean\_s  
Epoch 2153/5000  
103/103 [=====] - 0s 39us/step - loss: 904.9056 - acc: 0.0194 - mean\_s  
Epoch 2154/5000  
103/103 [=====] - 0s 39us/step - loss: 904.4761 - acc: 0.0194 - mean\_s  
Epoch 2155/5000  
103/103 [=====] - 0s 39us/step - loss: 903.9963 - acc: 0.0194 - mean\_s  
Epoch 2156/5000  
103/103 [=====] - 0s 29us/step - loss: 903.5771 - acc: 0.0194 - mean\_s  
Epoch 2157/5000  
103/103 [=====] - 0s 29us/step - loss: 903.1375 - acc: 0.0194 - mean\_s  
Epoch 2158/5000  
103/103 [=====] - 0s 29us/step - loss: 902.6431 - acc: 0.0194 - mean\_s  
Epoch 2159/5000  
103/103 [=====] - 0s 39us/step - loss: 902.1953 - acc: 0.0194 - mean\_s  
Epoch 2160/5000  
103/103 [=====] - 0s 39us/step - loss: 901.7440 - acc: 0.0097 - mean\_s  
Epoch 2161/5000  
103/103 [=====] - 0s 39us/step - loss: 901.3044 - acc: 0.0097 - mean\_s



Epoch 2162/5000  
103/103 [=====] - 0s 29us/step - loss: 900.9605 - acc: 0.0097 - mean\_s  
Epoch 2163/5000  
103/103 [=====] - 0s 39us/step - loss: 900.4753 - acc: 0.0097 - mean\_s  
Epoch 2164/5000  
103/103 [=====] - 0s 39us/step - loss: 899.9948 - acc: 0.0097 - mean\_s  
Epoch 2165/5000  
103/103 [=====] - 0s 29us/step - loss: 899.5762 - acc: 0.0097 - mean\_s  
Epoch 2166/5000  
103/103 [=====] - 0s 39us/step - loss: 899.1274 - acc: 0.0097 - mean\_s  
Epoch 2167/5000  
103/103 [=====] - 0s 29us/step - loss: 898.7009 - acc: 0.0097 - mean\_s  
Epoch 2168/5000  
103/103 [=====] - 0s 39us/step - loss: 898.2781 - acc: 0.0097 - mean\_s  
Epoch 2169/5000  
103/103 [=====] - 0s 29us/step - loss: 897.8437 - acc: 0.0097 - mean\_s  
Epoch 2170/5000  
103/103 [=====] - 0s 39us/step - loss: 897.4113 - acc: 0.0097 - mean\_s  
Epoch 2171/5000  
103/103 [=====] - 0s 29us/step - loss: 897.0043 - acc: 0.0097 - mean\_s  
Epoch 2172/5000  
103/103 [=====] - 0s 29us/step - loss: 896.5621 - acc: 0.0097 - mean\_s  
Epoch 2173/5000  
103/103 [=====] - 0s 29us/step - loss: 896.1506 - acc: 0.0194 - mean\_s  
Epoch 2174/5000  
103/103 [=====] - 0s 39us/step - loss: 895.7050 - acc: 0.0194 - mean\_s  
Epoch 2175/5000  
103/103 [=====] - 0s 39us/step - loss: 895.2258 - acc: 0.0194 - mean\_s  
Epoch 2176/5000  
103/103 [=====] - 0s 29us/step - loss: 894.8260 - acc: 0.0194 - mean\_s  
Epoch 2177/5000  
103/103 [=====] - 0s 39us/step - loss: 894.3935 - acc: 0.0194 - mean\_s  
Epoch 2178/5000  
103/103 [=====] - 0s 39us/step - loss: 893.9463 - acc: 0.0194 - mean\_s  
Epoch 2179/5000  
103/103 [=====] - 0s 29us/step - loss: 893.4919 - acc: 0.0194 - mean\_s  
Epoch 2180/5000  
103/103 [=====] - 0s 39us/step - loss: 893.0385 - acc: 0.0194 - mean\_s  
Epoch 2181/5000  
103/103 [=====] - 0s 29us/step - loss: 892.5765 - acc: 0.0097 - mean\_s  
Epoch 2182/5000  
103/103 [=====] - 0s 29us/step - loss: 892.1707 - acc: 0.0097 - mean\_s  
Epoch 2183/5000  
103/103 [=====] - 0s 29us/step - loss: 891.7037 - acc: 0.0097 - mean\_s  
Epoch 2184/5000  
103/103 [=====] - 0s 29us/step - loss: 891.2320 - acc: 0.0097 - mean\_s  
Epoch 2185/5000  
103/103 [=====] - 0s 39us/step - loss: 890.7787 - acc: 0.0097 - mean\_s

Epoch 2186/5000  
103/103 [=====] - 0s 29us/step - loss: 890.3448 - acc: 0.0097 - mean\_s  
Epoch 2187/5000  
103/103 [=====] - 0s 29us/step - loss: 889.8939 - acc: 0.0097 - mean\_s  
Epoch 2188/5000  
103/103 [=====] - 0s 29us/step - loss: 889.4471 - acc: 0.0097 - mean\_s  
Epoch 2189/5000  
103/103 [=====] - 0s 39us/step - loss: 888.9722 - acc: 0.0194 - mean\_s  
Epoch 2190/5000  
103/103 [=====] - 0s 29us/step - loss: 888.5559 - acc: 0.0194 - mean\_s  
Epoch 2191/5000  
103/103 [=====] - 0s 29us/step - loss: 888.0875 - acc: 0.0194 - mean\_s  
Epoch 2192/5000  
103/103 [=====] - 0s 29us/step - loss: 887.6411 - acc: 0.0194 - mean\_s  
Epoch 2193/5000  
103/103 [=====] - 0s 39us/step - loss: 887.2200 - acc: 0.0194 - mean\_s  
Epoch 2194/5000  
103/103 [=====] - 0s 29us/step - loss: 886.8033 - acc: 0.0194 - mean\_s  
Epoch 2195/5000  
103/103 [=====] - 0s 29us/step - loss: 886.3073 - acc: 0.0194 - mean\_s  
Epoch 2196/5000  
103/103 [=====] - 0s 39us/step - loss: 885.8822 - acc: 0.0194 - mean\_s  
Epoch 2197/5000  
103/103 [=====] - 0s 39us/step - loss: 885.4327 - acc: 0.0194 - mean\_s  
Epoch 2198/5000  
103/103 [=====] - 0s 29us/step - loss: 885.0098 - acc: 0.0194 - mean\_s  
Epoch 2199/5000  
103/103 [=====] - 0s 29us/step - loss: 884.5722 - acc: 0.0291 - mean\_s  
Epoch 2200/5000  
103/103 [=====] - 0s 39us/step - loss: 884.1309 - acc: 0.0291 - mean\_s  
Epoch 2201/5000  
103/103 [=====] - 0s 39us/step - loss: 883.6857 - acc: 0.0291 - mean\_s  
Epoch 2202/5000  
103/103 [=====] - 0s 19us/step - loss: 883.2709 - acc: 0.0291 - mean\_s  
Epoch 2203/5000  
103/103 [=====] - 0s 39us/step - loss: 882.7953 - acc: 0.0194 - mean\_s  
Epoch 2204/5000  
103/103 [=====] - 0s 39us/step - loss: 882.3721 - acc: 0.0291 - mean\_s  
Epoch 2205/5000  
103/103 [=====] - 0s 39us/step - loss: 881.9525 - acc: 0.0291 - mean\_s  
Epoch 2206/5000  
103/103 [=====] - 0s 29us/step - loss: 881.5124 - acc: 0.0291 - mean\_s  
Epoch 2207/5000  
103/103 [=====] - 0s 29us/step - loss: 881.0720 - acc: 0.0291 - mean\_s  
Epoch 2208/5000  
103/103 [=====] - 0s 39us/step - loss: 880.6096 - acc: 0.0291 - mean\_s  
Epoch 2209/5000  
103/103 [=====] - 0s 29us/step - loss: 880.1915 - acc: 0.0291 - mean\_s

Epoch 2210/5000  
103/103 [=====] - 0s 29us/step - loss: 879.7929 - acc: 0.0388 - mean\_s  
Epoch 2211/5000  
103/103 [=====] - 0s 29us/step - loss: 879.2975 - acc: 0.0388 - mean\_s  
Epoch 2212/5000  
103/103 [=====] - 0s 29us/step - loss: 878.9139 - acc: 0.0388 - mean\_s  
Epoch 2213/5000  
103/103 [=====] - 0s 29us/step - loss: 878.4926 - acc: 0.0388 - mean\_s  
Epoch 2214/5000  
103/103 [=====] - 0s 29us/step - loss: 878.0335 - acc: 0.0388 - mean\_s  
Epoch 2215/5000  
103/103 [=====] - 0s 29us/step - loss: 877.5753 - acc: 0.0388 - mean\_s  
Epoch 2216/5000  
103/103 [=====] - 0s 39us/step - loss: 877.0919 - acc: 0.0388 - mean\_s  
Epoch 2217/5000  
103/103 [=====] - 0s 29us/step - loss: 876.7235 - acc: 0.0388 - mean\_s  
Epoch 2218/5000  
103/103 [=====] - 0s 29us/step - loss: 876.3016 - acc: 0.0388 - mean\_s  
Epoch 2219/5000  
103/103 [=====] - 0s 39us/step - loss: 875.8167 - acc: 0.0388 - mean\_s  
Epoch 2220/5000  
103/103 [=====] - 0s 29us/step - loss: 875.3666 - acc: 0.0388 - mean\_s  
Epoch 2221/5000  
103/103 [=====] - 0s 29us/step - loss: 874.9086 - acc: 0.0388 - mean\_s  
Epoch 2222/5000  
103/103 [=====] - 0s 39us/step - loss: 874.4908 - acc: 0.0388 - mean\_s  
Epoch 2223/5000  
103/103 [=====] - 0s 29us/step - loss: 874.0518 - acc: 0.0388 - mean\_s  
Epoch 2224/5000  
103/103 [=====] - 0s 29us/step - loss: 873.6158 - acc: 0.0388 - mean\_s  
Epoch 2225/5000  
103/103 [=====] - 0s 29us/step - loss: 873.1537 - acc: 0.0388 - mean\_s  
Epoch 2226/5000  
103/103 [=====] - 0s 29us/step - loss: 872.7156 - acc: 0.0388 - mean\_s  
Epoch 2227/5000  
103/103 [=====] - 0s 39us/step - loss: 872.2722 - acc: 0.0388 - mean\_s  
Epoch 2228/5000  
103/103 [=====] - 0s 29us/step - loss: 871.8678 - acc: 0.0388 - mean\_s  
Epoch 2229/5000  
103/103 [=====] - 0s 39us/step - loss: 871.4391 - acc: 0.0388 - mean\_s  
Epoch 2230/5000  
103/103 [=====] - 0s 29us/step - loss: 870.9855 - acc: 0.0388 - mean\_s  
Epoch 2231/5000  
103/103 [=====] - 0s 29us/step - loss: 870.4971 - acc: 0.0388 - mean\_s  
Epoch 2232/5000  
103/103 [=====] - 0s 39us/step - loss: 870.0463 - acc: 0.0388 - mean\_s  
Epoch 2233/5000  
103/103 [=====] - 0s 29us/step - loss: 869.6915 - acc: 0.0388 - mean\_s

Epoch 2234/5000  
103/103 [=====] - 0s 39us/step - loss: 869.1689 - acc: 0.0388 - mean\_s  
Epoch 2235/5000  
103/103 [=====] - 0s 29us/step - loss: 868.7042 - acc: 0.0388 - mean\_s  
Epoch 2236/5000  
103/103 [=====] - 0s 29us/step - loss: 868.3141 - acc: 0.0388 - mean\_s  
Epoch 2237/5000  
103/103 [=====] - 0s 29us/step - loss: 867.8301 - acc: 0.0388 - mean\_s  
Epoch 2238/5000  
103/103 [=====] - 0s 29us/step - loss: 867.3981 - acc: 0.0388 - mean\_s  
Epoch 2239/5000  
103/103 [=====] - 0s 29us/step - loss: 866.9540 - acc: 0.0388 - mean\_s  
Epoch 2240/5000  
103/103 [=====] - 0s 29us/step - loss: 866.4984 - acc: 0.0388 - mean\_s  
Epoch 2241/5000  
103/103 [=====] - 0s 29us/step - loss: 866.0267 - acc: 0.0388 - mean\_s  
Epoch 2242/5000  
103/103 [=====] - 0s 39us/step - loss: 865.6187 - acc: 0.0388 - mean\_s  
Epoch 2243/5000  
103/103 [=====] - 0s 29us/step - loss: 865.1293 - acc: 0.0388 - mean\_s  
Epoch 2244/5000  
103/103 [=====] - 0s 29us/step - loss: 864.6865 - acc: 0.0388 - mean\_s  
Epoch 2245/5000  
103/103 [=====] - 0s 39us/step - loss: 864.2394 - acc: 0.0388 - mean\_s  
Epoch 2246/5000  
103/103 [=====] - 0s 29us/step - loss: 863.7840 - acc: 0.0388 - mean\_s  
Epoch 2247/5000  
103/103 [=====] - 0s 29us/step - loss: 863.3304 - acc: 0.0388 - mean\_s  
Epoch 2248/5000  
103/103 [=====] - 0s 19us/step - loss: 862.9030 - acc: 0.0388 - mean\_s  
Epoch 2249/5000  
103/103 [=====] - 0s 29us/step - loss: 862.4563 - acc: 0.0388 - mean\_s  
Epoch 2250/5000  
103/103 [=====] - 0s 19us/step - loss: 862.0609 - acc: 0.0485 - mean\_s  
Epoch 2251/5000  
103/103 [=====] - 0s 29us/step - loss: 861.5988 - acc: 0.0485 - mean\_s  
Epoch 2252/5000  
103/103 [=====] - 0s 29us/step - loss: 861.1798 - acc: 0.0388 - mean\_s  
Epoch 2253/5000  
103/103 [=====] - 0s 29us/step - loss: 860.7925 - acc: 0.0388 - mean\_s  
Epoch 2254/5000  
103/103 [=====] - 0s 29us/step - loss: 860.3622 - acc: 0.0583 - mean\_s  
Epoch 2255/5000  
103/103 [=====] - 0s 39us/step - loss: 859.9128 - acc: 0.0583 - mean\_s  
Epoch 2256/5000  
103/103 [=====] - 0s 29us/step - loss: 859.4731 - acc: 0.0583 - mean\_s  
Epoch 2257/5000  
103/103 [=====] - 0s 29us/step - loss: 859.1049 - acc: 0.0583 - mean\_s

Epoch 2258/5000  
103/103 [=====] - 0s 39us/step - loss: 858.6801 - acc: 0.0583 - mean\_s  
Epoch 2259/5000  
103/103 [=====] - 0s 39us/step - loss: 858.2009 - acc: 0.0583 - mean\_s  
Epoch 2260/5000  
103/103 [=====] - 0s 29us/step - loss: 857.7752 - acc: 0.0583 - mean\_s  
Epoch 2261/5000  
103/103 [=====] - 0s 29us/step - loss: 857.3322 - acc: 0.0583 - mean\_s  
Epoch 2262/5000  
103/103 [=====] - 0s 49us/step - loss: 856.9224 - acc: 0.0680 - mean\_s  
Epoch 2263/5000  
103/103 [=====] - 0s 29us/step - loss: 856.5231 - acc: 0.0680 - mean\_s  
Epoch 2264/5000  
103/103 [=====] - 0s 29us/step - loss: 856.0363 - acc: 0.0680 - mean\_s  
Epoch 2265/5000  
103/103 [=====] - 0s 39us/step - loss: 855.6492 - acc: 0.0680 - mean\_s  
Epoch 2266/5000  
103/103 [=====] - 0s 29us/step - loss: 855.2057 - acc: 0.0680 - mean\_s  
Epoch 2267/5000  
103/103 [=====] - 0s 39us/step - loss: 854.7747 - acc: 0.0680 - mean\_s  
Epoch 2268/5000  
103/103 [=====] - 0s 29us/step - loss: 854.3458 - acc: 0.0680 - mean\_s  
Epoch 2269/5000  
103/103 [=====] - 0s 29us/step - loss: 853.9293 - acc: 0.0680 - mean\_s  
Epoch 2270/5000  
103/103 [=====] - 0s 19us/step - loss: 853.5016 - acc: 0.0680 - mean\_s  
Epoch 2271/5000  
103/103 [=====] - 0s 29us/step - loss: 853.1129 - acc: 0.0680 - mean\_s  
Epoch 2272/5000  
103/103 [=====] - 0s 29us/step - loss: 852.7074 - acc: 0.0680 - mean\_s  
Epoch 2273/5000  
103/103 [=====] - 0s 48us/step - loss: 852.3270 - acc: 0.0680 - mean\_s  
Epoch 2274/5000  
103/103 [=====] - 0s 29us/step - loss: 851.8986 - acc: 0.0680 - mean\_s  
Epoch 2275/5000  
103/103 [=====] - 0s 39us/step - loss: 851.4596 - acc: 0.0680 - mean\_s  
Epoch 2276/5000  
103/103 [=====] - 0s 58us/step - loss: 851.0161 - acc: 0.0680 - mean\_s  
Epoch 2277/5000  
103/103 [=====] - 0s 49us/step - loss: 850.5988 - acc: 0.0680 - mean\_s  
Epoch 2278/5000  
103/103 [=====] - 0s 39us/step - loss: 850.1935 - acc: 0.0680 - mean\_s  
Epoch 2279/5000  
103/103 [=====] - 0s 39us/step - loss: 849.7718 - acc: 0.0680 - mean\_s  
Epoch 2280/5000  
103/103 [=====] - 0s 29us/step - loss: 849.3422 - acc: 0.0680 - mean\_s  
Epoch 2281/5000  
103/103 [=====] - 0s 39us/step - loss: 848.8914 - acc: 0.0680 - mean\_s

Epoch 2282/5000  
103/103 [=====] - 0s 39us/step - loss: 848.4780 - acc: 0.0680 - mean\_s  
Epoch 2283/5000  
103/103 [=====] - 0s 39us/step - loss: 848.1135 - acc: 0.0680 - mean\_s  
Epoch 2284/5000  
103/103 [=====] - 0s 39us/step - loss: 847.6938 - acc: 0.0680 - mean\_s  
Epoch 2285/5000  
103/103 [=====] - 0s 39us/step - loss: 847.2495 - acc: 0.0680 - mean\_s  
Epoch 2286/5000  
103/103 [=====] - 0s 39us/step - loss: 846.8315 - acc: 0.0680 - mean\_s  
Epoch 2287/5000  
103/103 [=====] - 0s 29us/step - loss: 846.3776 - acc: 0.0680 - mean\_s  
Epoch 2288/5000  
103/103 [=====] - 0s 29us/step - loss: 846.0093 - acc: 0.0680 - mean\_s  
Epoch 2289/5000  
103/103 [=====] - 0s 29us/step - loss: 845.5869 - acc: 0.0680 - mean\_s  
Epoch 2290/5000  
103/103 [=====] - 0s 19us/step - loss: 845.1146 - acc: 0.0680 - mean\_s  
Epoch 2291/5000  
103/103 [=====] - 0s 29us/step - loss: 844.7061 - acc: 0.0680 - mean\_s  
Epoch 2292/5000  
103/103 [=====] - 0s 39us/step - loss: 844.2985 - acc: 0.0680 - mean\_s  
Epoch 2293/5000  
103/103 [=====] - 0s 39us/step - loss: 843.9228 - acc: 0.0680 - mean\_s  
Epoch 2294/5000  
103/103 [=====] - 0s 29us/step - loss: 843.4576 - acc: 0.0680 - mean\_s  
Epoch 2295/5000  
103/103 [=====] - 0s 29us/step - loss: 843.0615 - acc: 0.0680 - mean\_s  
Epoch 2296/5000  
103/103 [=====] - 0s 29us/step - loss: 842.6561 - acc: 0.0680 - mean\_s  
Epoch 2297/5000  
103/103 [=====] - 0s 29us/step - loss: 842.1976 - acc: 0.0680 - mean\_s  
Epoch 2298/5000  
103/103 [=====] - 0s 39us/step - loss: 841.8683 - acc: 0.0680 - mean\_s  
Epoch 2299/5000  
103/103 [=====] - 0s 29us/step - loss: 841.4648 - acc: 0.0680 - mean\_s  
Epoch 2300/5000  
103/103 [=====] - 0s 29us/step - loss: 840.9999 - acc: 0.0680 - mean\_s  
Epoch 2301/5000  
103/103 [=====] - 0s 29us/step - loss: 840.5648 - acc: 0.0680 - mean\_s  
Epoch 2302/5000  
103/103 [=====] - 0s 39us/step - loss: 840.1567 - acc: 0.0680 - mean\_s  
Epoch 2303/5000  
103/103 [=====] - 0s 29us/step - loss: 839.7183 - acc: 0.0680 - mean\_s  
Epoch 2304/5000  
103/103 [=====] - 0s 19us/step - loss: 839.2985 - acc: 0.0680 - mean\_s  
Epoch 2305/5000  
103/103 [=====] - 0s 29us/step - loss: 838.8561 - acc: 0.0680 - mean\_s

Epoch 2306/5000  
103/103 [=====] - 0s 39us/step - loss: 838.4535 - acc: 0.0680 - mean\_s  
Epoch 2307/5000  
103/103 [=====] - 0s 19us/step - loss: 838.0318 - acc: 0.0680 - mean\_s  
Epoch 2308/5000  
103/103 [=====] - 0s 29us/step - loss: 837.5854 - acc: 0.0583 - mean\_s  
Epoch 2309/5000  
103/103 [=====] - 0s 29us/step - loss: 837.1036 - acc: 0.0583 - mean\_s  
Epoch 2310/5000  
103/103 [=====] - 0s 29us/step - loss: 836.6097 - acc: 0.0583 - mean\_s  
Epoch 2311/5000  
103/103 [=====] - 0s 29us/step - loss: 836.1176 - acc: 0.0583 - mean\_s  
Epoch 2312/5000  
103/103 [=====] - 0s 39us/step - loss: 835.5960 - acc: 0.0583 - mean\_s  
Epoch 2313/5000  
103/103 [=====] - 0s 29us/step - loss: 835.0398 - acc: 0.0485 - mean\_s  
Epoch 2314/5000  
103/103 [=====] - 0s 39us/step - loss: 834.4999 - acc: 0.0485 - mean\_s  
Epoch 2315/5000  
103/103 [=====] - 0s 39us/step - loss: 833.9847 - acc: 0.0485 - mean\_s  
Epoch 2316/5000  
103/103 [=====] - 0s 39us/step - loss: 833.3992 - acc: 0.0485 - mean\_s  
Epoch 2317/5000  
103/103 [=====] - 0s 29us/step - loss: 832.8469 - acc: 0.0485 - mean\_s  
Epoch 2318/5000  
103/103 [=====] - 0s 39us/step - loss: 832.2962 - acc: 0.0485 - mean\_s  
Epoch 2319/5000  
103/103 [=====] - 0s 29us/step - loss: 831.7603 - acc: 0.0485 - mean\_s  
Epoch 2320/5000  
103/103 [=====] - 0s 29us/step - loss: 831.1290 - acc: 0.0485 - mean\_s  
Epoch 2321/5000  
103/103 [=====] - 0s 39us/step - loss: 830.5507 - acc: 0.0485 - mean\_s  
Epoch 2322/5000  
103/103 [=====] - 0s 29us/step - loss: 829.9423 - acc: 0.0485 - mean\_s  
Epoch 2323/5000  
103/103 [=====] - 0s 29us/step - loss: 829.3663 - acc: 0.0485 - mean\_s  
Epoch 2324/5000  
103/103 [=====] - 0s 39us/step - loss: 828.8085 - acc: 0.0485 - mean\_s  
Epoch 2325/5000  
103/103 [=====] - 0s 29us/step - loss: 828.2157 - acc: 0.0485 - mean\_s  
Epoch 2326/5000  
103/103 [=====] - 0s 39us/step - loss: 827.6251 - acc: 0.0485 - mean\_s  
Epoch 2327/5000  
103/103 [=====] - 0s 39us/step - loss: 827.0674 - acc: 0.0485 - mean\_s  
Epoch 2328/5000  
103/103 [=====] - 0s 29us/step - loss: 826.4919 - acc: 0.0388 - mean\_s  
Epoch 2329/5000  
103/103 [=====] - 0s 39us/step - loss: 825.8877 - acc: 0.0388 - mean\_s

Epoch 2330/5000  
103/103 [=====] - 0s 49us/step - loss: 825.2979 - acc: 0.0388 - mean\_s  
Epoch 2331/5000  
103/103 [=====] - 0s 39us/step - loss: 824.7155 - acc: 0.0388 - mean\_s  
Epoch 2332/5000  
103/103 [=====] - 0s 29us/step - loss: 824.1499 - acc: 0.0388 - mean\_s  
Epoch 2333/5000  
103/103 [=====] - 0s 29us/step - loss: 823.5566 - acc: 0.0388 - mean\_s  
Epoch 2334/5000  
103/103 [=====] - 0s 29us/step - loss: 822.9661 - acc: 0.0388 - mean\_s  
Epoch 2335/5000  
103/103 [=====] - 0s 29us/step - loss: 822.3910 - acc: 0.0388 - mean\_s  
Epoch 2336/5000  
103/103 [=====] - 0s 29us/step - loss: 821.7757 - acc: 0.0388 - mean\_s  
Epoch 2337/5000  
103/103 [=====] - 0s 39us/step - loss: 821.2986 - acc: 0.0388 - mean\_s  
Epoch 2338/5000  
103/103 [=====] - 0s 39us/step - loss: 820.7007 - acc: 0.0388 - mean\_s  
Epoch 2339/5000  
103/103 [=====] - 0s 29us/step - loss: 820.0944 - acc: 0.0388 - mean\_s  
Epoch 2340/5000  
103/103 [=====] - 0s 39us/step - loss: 819.5536 - acc: 0.0388 - mean\_s  
Epoch 2341/5000  
103/103 [=====] - 0s 39us/step - loss: 819.0177 - acc: 0.0388 - mean\_s  
Epoch 2342/5000  
103/103 [=====] - 0s 29us/step - loss: 818.4363 - acc: 0.0485 - mean\_s  
Epoch 2343/5000  
103/103 [=====] - 0s 29us/step - loss: 817.7927 - acc: 0.0583 - mean\_s  
Epoch 2344/5000  
103/103 [=====] - 0s 29us/step - loss: 817.2318 - acc: 0.0583 - mean\_s  
Epoch 2345/5000  
103/103 [=====] - 0s 29us/step - loss: 816.6614 - acc: 0.0583 - mean\_s  
Epoch 2346/5000  
103/103 [=====] - 0s 19us/step - loss: 816.0596 - acc: 0.0583 - mean\_s  
Epoch 2347/5000  
103/103 [=====] - 0s 29us/step - loss: 815.5432 - acc: 0.0583 - mean\_s  
Epoch 2348/5000  
103/103 [=====] - 0s 29us/step - loss: 814.9310 - acc: 0.0583 - mean\_s  
Epoch 2349/5000  
103/103 [=====] - 0s 29us/step - loss: 814.3365 - acc: 0.0583 - mean\_s  
Epoch 2350/5000  
103/103 [=====] - 0s 29us/step - loss: 813.7572 - acc: 0.0583 - mean\_s  
Epoch 2351/5000  
103/103 [=====] - 0s 29us/step - loss: 813.0982 - acc: 0.0583 - mean\_s  
Epoch 2352/5000  
103/103 [=====] - 0s 39us/step - loss: 812.4327 - acc: 0.0583 - mean\_s  
Epoch 2353/5000  
103/103 [=====] - 0s 39us/step - loss: 811.8058 - acc: 0.0583 - mean\_s



Epoch 2354/5000  
103/103 [=====] - 0s 29us/step - loss: 811.1730 - acc: 0.0485 - mean\_s  
Epoch 2355/5000  
103/103 [=====] - 0s 29us/step - loss: 810.4982 - acc: 0.0485 - mean\_s  
Epoch 2356/5000  
103/103 [=====] - 0s 29us/step - loss: 809.8345 - acc: 0.0583 - mean\_s  
Epoch 2357/5000  
103/103 [=====] - 0s 39us/step - loss: 809.1716 - acc: 0.0485 - mean\_s  
Epoch 2358/5000  
103/103 [=====] - 0s 29us/step - loss: 808.4966 - acc: 0.0485 - mean\_s  
Epoch 2359/5000  
103/103 [=====] - 0s 39us/step - loss: 807.8818 - acc: 0.0485 - mean\_s  
Epoch 2360/5000  
103/103 [=====] - 0s 39us/step - loss: 807.2347 - acc: 0.0388 - mean\_s  
Epoch 2361/5000  
103/103 [=====] - 0s 29us/step - loss: 806.5381 - acc: 0.0388 - mean\_s  
Epoch 2362/5000  
103/103 [=====] - 0s 39us/step - loss: 805.9453 - acc: 0.0388 - mean\_s  
Epoch 2363/5000  
103/103 [=====] - 0s 29us/step - loss: 805.2644 - acc: 0.0388 - mean\_s  
Epoch 2364/5000  
103/103 [=====] - 0s 29us/step - loss: 804.5746 - acc: 0.0388 - mean\_s  
Epoch 2365/5000  
103/103 [=====] - 0s 29us/step - loss: 803.9985 - acc: 0.0388 - mean\_s  
Epoch 2366/5000  
103/103 [=====] - 0s 29us/step - loss: 803.3679 - acc: 0.0291 - mean\_s  
Epoch 2367/5000  
103/103 [=====] - 0s 29us/step - loss: 802.6813 - acc: 0.0194 - mean\_s  
Epoch 2368/5000  
103/103 [=====] - 0s 29us/step - loss: 802.0024 - acc: 0.0194 - mean\_s  
Epoch 2369/5000  
103/103 [=====] - 0s 29us/step - loss: 801.3256 - acc: 0.0194 - mean\_s  
Epoch 2370/5000  
103/103 [=====] - 0s 39us/step - loss: 800.7180 - acc: 0.0194 - mean\_s  
Epoch 2371/5000  
103/103 [=====] - 0s 39us/step - loss: 800.0457 - acc: 0.0194 - mean\_s  
Epoch 2372/5000  
103/103 [=====] - 0s 29us/step - loss: 799.4732 - acc: 0.0194 - mean\_s  
Epoch 2373/5000  
103/103 [=====] - 0s 39us/step - loss: 798.8315 - acc: 0.0194 - mean\_s  
Epoch 2374/5000  
103/103 [=====] - 0s 29us/step - loss: 798.1701 - acc: 0.0194 - mean\_s  
Epoch 2375/5000  
103/103 [=====] - 0s 29us/step - loss: 797.5624 - acc: 0.0194 - mean\_s  
Epoch 2376/5000  
103/103 [=====] - 0s 29us/step - loss: 796.9614 - acc: 0.0194 - mean\_s  
Epoch 2377/5000  
103/103 [=====] - 0s 39us/step - loss: 796.3272 - acc: 0.0194 - mean\_s

Epoch 2378/5000  
103/103 [=====] - 0s 39us/step - loss: 795.7581 - acc: 0.0194 - mean\_s  
Epoch 2379/5000  
103/103 [=====] - 0s 29us/step - loss: 795.1321 - acc: 0.0194 - mean\_s  
Epoch 2380/5000  
103/103 [=====] - 0s 39us/step - loss: 794.5668 - acc: 0.0194 - mean\_s  
Epoch 2381/5000  
103/103 [=====] - 0s 39us/step - loss: 793.9051 - acc: 0.0194 - mean\_s  
Epoch 2382/5000  
103/103 [=====] - 0s 29us/step - loss: 793.3774 - acc: 0.0194 - mean\_s  
Epoch 2383/5000  
103/103 [=====] - 0s 39us/step - loss: 792.7878 - acc: 0.0194 - mean\_s  
Epoch 2384/5000  
103/103 [=====] - 0s 29us/step - loss: 792.1227 - acc: 0.0291 - mean\_s  
Epoch 2385/5000  
103/103 [=====] - 0s 29us/step - loss: 791.5601 - acc: 0.0291 - mean\_s  
Epoch 2386/5000  
103/103 [=====] - 0s 39us/step - loss: 791.0184 - acc: 0.0291 - mean\_s  
Epoch 2387/5000  
103/103 [=====] - 0s 29us/step - loss: 790.4163 - acc: 0.0194 - mean\_s  
Epoch 2388/5000  
103/103 [=====] - 0s 39us/step - loss: 789.7433 - acc: 0.0291 - mean\_s  
Epoch 2389/5000  
103/103 [=====] - 0s 39us/step - loss: 789.1881 - acc: 0.0291 - mean\_s  
Epoch 2390/5000  
103/103 [=====] - 0s 29us/step - loss: 788.6069 - acc: 0.0291 - mean\_s  
Epoch 2391/5000  
103/103 [=====] - 0s 29us/step - loss: 788.0264 - acc: 0.0291 - mean\_s  
Epoch 2392/5000  
103/103 [=====] - 0s 29us/step - loss: 787.4574 - acc: 0.0291 - mean\_s  
Epoch 2393/5000  
103/103 [=====] - 0s 29us/step - loss: 786.8796 - acc: 0.0194 - mean\_s  
Epoch 2394/5000  
103/103 [=====] - 0s 29us/step - loss: 786.3132 - acc: 0.0194 - mean\_s  
Epoch 2395/5000  
103/103 [=====] - 0s 29us/step - loss: 785.7721 - acc: 0.0194 - mean\_s  
Epoch 2396/5000  
103/103 [=====] - 0s 29us/step - loss: 785.1982 - acc: 0.0194 - mean\_s  
Epoch 2397/5000  
103/103 [=====] - 0s 29us/step - loss: 784.6636 - acc: 0.0194 - mean\_s  
Epoch 2398/5000  
103/103 [=====] - 0s 29us/step - loss: 784.1595 - acc: 0.0194 - mean\_s  
Epoch 2399/5000  
103/103 [=====] - 0s 29us/step - loss: 783.5495 - acc: 0.0194 - mean\_s  
Epoch 2400/5000  
103/103 [=====] - 0s 39us/step - loss: 783.0240 - acc: 0.0194 - mean\_s  
Epoch 2401/5000  
103/103 [=====] - 0s 29us/step - loss: 782.4462 - acc: 0.0194 - mean\_s

Epoch 2402/5000  
103/103 [=====] - 0s 29us/step - loss: 781.9255 - acc: 0.0194 - mean\_s  
Epoch 2403/5000  
103/103 [=====] - 0s 29us/step - loss: 781.3484 - acc: 0.0194 - mean\_s  
Epoch 2404/5000  
103/103 [=====] - 0s 39us/step - loss: 780.8543 - acc: 0.0194 - mean\_s  
Epoch 2405/5000  
103/103 [=====] - 0s 29us/step - loss: 780.2835 - acc: 0.0194 - mean\_s  
Epoch 2406/5000  
103/103 [=====] - 0s 29us/step - loss: 779.7724 - acc: 0.0194 - mean\_s  
Epoch 2407/5000  
103/103 [=====] - 0s 29us/step - loss: 779.2176 - acc: 0.0194 - mean\_s  
Epoch 2408/5000  
103/103 [=====] - 0s 29us/step - loss: 778.6721 - acc: 0.0194 - mean\_s  
Epoch 2409/5000  
103/103 [=====] - 0s 39us/step - loss: 778.1150 - acc: 0.0194 - mean\_s  
Epoch 2410/5000  
103/103 [=====] - 0s 29us/step - loss: 777.5562 - acc: 0.0194 - mean\_s  
Epoch 2411/5000  
103/103 [=====] - 0s 39us/step - loss: 776.9857 - acc: 0.0194 - mean\_s  
Epoch 2412/5000  
103/103 [=====] - 0s 29us/step - loss: 776.4288 - acc: 0.0194 - mean\_s  
Epoch 2413/5000  
103/103 [=====] - 0s 39us/step - loss: 775.8501 - acc: 0.0194 - mean\_s  
Epoch 2414/5000  
103/103 [=====] - 0s 29us/step - loss: 775.2491 - acc: 0.0194 - mean\_s  
Epoch 2415/5000  
103/103 [=====] - 0s 29us/step - loss: 774.6131 - acc: 0.0194 - mean\_s  
Epoch 2416/5000  
103/103 [=====] - 0s 29us/step - loss: 774.0413 - acc: 0.0194 - mean\_s  
Epoch 2417/5000  
103/103 [=====] - 0s 39us/step - loss: 773.3947 - acc: 0.0194 - mean\_s  
Epoch 2418/5000  
103/103 [=====] - 0s 29us/step - loss: 772.6946 - acc: 0.0194 - mean\_s  
Epoch 2419/5000  
103/103 [=====] - 0s 29us/step - loss: 772.0643 - acc: 0.0291 - mean\_s  
Epoch 2420/5000  
103/103 [=====] - 0s 29us/step - loss: 771.4111 - acc: 0.0291 - mean\_s  
Epoch 2421/5000  
103/103 [=====] - 0s 39us/step - loss: 770.7778 - acc: 0.0291 - mean\_s  
Epoch 2422/5000  
103/103 [=====] - 0s 29us/step - loss: 770.0796 - acc: 0.0291 - mean\_s  
Epoch 2423/5000  
103/103 [=====] - 0s 29us/step - loss: 769.3871 - acc: 0.0291 - mean\_s  
Epoch 2424/5000  
103/103 [=====] - 0s 29us/step - loss: 768.7500 - acc: 0.0291 - mean\_s  
Epoch 2425/5000  
103/103 [=====] - 0s 39us/step - loss: 768.0891 - acc: 0.0291 - mean\_s

Epoch 2426/5000  
103/103 [=====] - 0s 29us/step - loss: 767.4615 - acc: 0.0291 - mean\_s  
Epoch 2427/5000  
103/103 [=====] - 0s 29us/step - loss: 766.7741 - acc: 0.0291 - mean\_s  
Epoch 2428/5000  
103/103 [=====] - 0s 29us/step - loss: 766.1191 - acc: 0.0291 - mean\_s  
Epoch 2429/5000  
103/103 [=====] - 0s 29us/step - loss: 765.4960 - acc: 0.0291 - mean\_s  
Epoch 2430/5000  
103/103 [=====] - 0s 29us/step - loss: 764.7959 - acc: 0.0291 - mean\_s  
Epoch 2431/5000  
103/103 [=====] - 0s 39us/step - loss: 764.1476 - acc: 0.0291 - mean\_s  
Epoch 2432/5000  
103/103 [=====] - 0s 29us/step - loss: 763.5624 - acc: 0.0388 - mean\_s  
Epoch 2433/5000  
103/103 [=====] - 0s 29us/step - loss: 762.9075 - acc: 0.0388 - mean\_s  
Epoch 2434/5000  
103/103 [=====] - 0s 39us/step - loss: 762.2734 - acc: 0.0388 - mean\_s  
Epoch 2435/5000  
103/103 [=====] - 0s 29us/step - loss: 761.6230 - acc: 0.0388 - mean\_s  
Epoch 2436/5000  
103/103 [=====] - 0s 29us/step - loss: 761.0035 - acc: 0.0388 - mean\_s  
Epoch 2437/5000  
103/103 [=====] - 0s 29us/step - loss: 760.3872 - acc: 0.0388 - mean\_s  
Epoch 2438/5000  
103/103 [=====] - 0s 29us/step - loss: 759.7769 - acc: 0.0388 - mean\_s  
Epoch 2439/5000  
103/103 [=====] - 0s 39us/step - loss: 759.1506 - acc: 0.0388 - mean\_s  
Epoch 2440/5000  
103/103 [=====] - 0s 29us/step - loss: 758.5219 - acc: 0.0388 - mean\_s  
Epoch 2441/5000  
103/103 [=====] - 0s 29us/step - loss: 757.8903 - acc: 0.0388 - mean\_s  
Epoch 2442/5000  
103/103 [=====] - 0s 29us/step - loss: 757.2803 - acc: 0.0388 - mean\_s  
Epoch 2443/5000  
103/103 [=====] - 0s 29us/step - loss: 756.7157 - acc: 0.0388 - mean\_s  
Epoch 2444/5000  
103/103 [=====] - 0s 29us/step - loss: 756.1425 - acc: 0.0388 - mean\_s  
Epoch 2445/5000  
103/103 [=====] - 0s 39us/step - loss: 755.5569 - acc: 0.0388 - mean\_s  
Epoch 2446/5000  
103/103 [=====] - 0s 39us/step - loss: 754.9481 - acc: 0.0485 - mean\_s  
Epoch 2447/5000  
103/103 [=====] - 0s 29us/step - loss: 754.3557 - acc: 0.0485 - mean\_s  
Epoch 2448/5000  
103/103 [=====] - 0s 29us/step - loss: 753.7438 - acc: 0.0485 - mean\_s  
Epoch 2449/5000  
103/103 [=====] - 0s 19us/step - loss: 753.1591 - acc: 0.0485 - mean\_s

Epoch 2450/5000  
103/103 [=====] - 0s 29us/step - loss: 752.5582 - acc: 0.0485 - mean\_9  
Epoch 2451/5000  
103/103 [=====] - 0s 19us/step - loss: 752.0718 - acc: 0.0485 - mean\_9  
Epoch 2452/5000  
103/103 [=====] - 0s 29us/step - loss: 751.6490 - acc: 0.0485 - mean\_9  
Epoch 2453/5000  
103/103 [=====] - 0s 19us/step - loss: 751.1506 - acc: 0.0485 - mean\_9  
Epoch 2454/5000  
103/103 [=====] - 0s 29us/step - loss: 750.6488 - acc: 0.0485 - mean\_9  
Epoch 2455/5000  
103/103 [=====] - 0s 29us/step - loss: 750.1193 - acc: 0.0485 - mean\_9  
Epoch 2456/5000  
103/103 [=====] - 0s 39us/step - loss: 749.5945 - acc: 0.0583 - mean\_9  
Epoch 2457/5000  
103/103 [=====] - 0s 29us/step - loss: 749.1088 - acc: 0.0583 - mean\_9  
Epoch 2458/5000  
103/103 [=====] - 0s 29us/step - loss: 748.6893 - acc: 0.0583 - mean\_9  
Epoch 2459/5000  
103/103 [=====] - 0s 29us/step - loss: 748.1729 - acc: 0.0583 - mean\_9  
Epoch 2460/5000  
103/103 [=====] - 0s 29us/step - loss: 747.6841 - acc: 0.0485 - mean\_9  
Epoch 2461/5000  
103/103 [=====] - 0s 29us/step - loss: 747.2479 - acc: 0.0485 - mean\_9  
Epoch 2462/5000  
103/103 [=====] - 0s 29us/step - loss: 746.7499 - acc: 0.0485 - mean\_9  
Epoch 2463/5000  
103/103 [=====] - 0s 29us/step - loss: 746.2297 - acc: 0.0485 - mean\_9  
Epoch 2464/5000  
103/103 [=====] - 0s 29us/step - loss: 745.7631 - acc: 0.0485 - mean\_9  
Epoch 2465/5000  
103/103 [=====] - 0s 29us/step - loss: 745.3317 - acc: 0.0485 - mean\_9  
Epoch 2466/5000  
103/103 [=====] - 0s 29us/step - loss: 744.8402 - acc: 0.0485 - mean\_9  
Epoch 2467/5000  
103/103 [=====] - 0s 29us/step - loss: 744.3292 - acc: 0.0388 - mean\_9  
Epoch 2468/5000  
103/103 [=====] - 0s 29us/step - loss: 743.8881 - acc: 0.0388 - mean\_9  
Epoch 2469/5000  
103/103 [=====] - 0s 29us/step - loss: 743.4784 - acc: 0.0388 - mean\_9  
Epoch 2470/5000  
103/103 [=====] - 0s 29us/step - loss: 743.0662 - acc: 0.0388 - mean\_9  
Epoch 2471/5000  
103/103 [=====] - 0s 29us/step - loss: 742.5941 - acc: 0.0388 - mean\_9  
Epoch 2472/5000  
103/103 [=====] - 0s 29us/step - loss: 742.0720 - acc: 0.0388 - mean\_9  
Epoch 2473/5000  
103/103 [=====] - 0s 29us/step - loss: 741.6025 - acc: 0.0388 - mean\_9

Epoch 2474/5000  
103/103 [=====] - 0s 29us/step - loss: 741.1168 - acc: 0.0388 - mean\_s  
Epoch 2475/5000  
103/103 [=====] - 0s 29us/step - loss: 740.5936 - acc: 0.0388 - mean\_s  
Epoch 2476/5000  
103/103 [=====] - 0s 29us/step - loss: 740.1813 - acc: 0.0388 - mean\_s  
Epoch 2477/5000  
103/103 [=====] - 0s 29us/step - loss: 739.7010 - acc: 0.0388 - mean\_s  
Epoch 2478/5000  
103/103 [=====] - 0s 29us/step - loss: 739.2059 - acc: 0.0388 - mean\_s  
Epoch 2479/5000  
103/103 [=====] - 0s 29us/step - loss: 738.7393 - acc: 0.0485 - mean\_s  
Epoch 2480/5000  
103/103 [=====] - 0s 29us/step - loss: 738.2918 - acc: 0.0485 - mean\_s  
Epoch 2481/5000  
103/103 [=====] - 0s 29us/step - loss: 737.8524 - acc: 0.0485 - mean\_s  
Epoch 2482/5000  
103/103 [=====] - 0s 29us/step - loss: 737.3822 - acc: 0.0485 - mean\_s  
Epoch 2483/5000  
103/103 [=====] - 0s 29us/step - loss: 736.9413 - acc: 0.0485 - mean\_s  
Epoch 2484/5000  
103/103 [=====] - 0s 29us/step - loss: 736.4760 - acc: 0.0485 - mean\_s  
Epoch 2485/5000  
103/103 [=====] - 0s 29us/step - loss: 736.0813 - acc: 0.0485 - mean\_s  
Epoch 2486/5000  
103/103 [=====] - 0s 39us/step - loss: 735.6663 - acc: 0.0485 - mean\_s  
Epoch 2487/5000  
103/103 [=====] - 0s 29us/step - loss: 735.1673 - acc: 0.0485 - mean\_s  
Epoch 2488/5000  
103/103 [=====] - 0s 29us/step - loss: 734.7186 - acc: 0.0485 - mean\_s  
Epoch 2489/5000  
103/103 [=====] - 0s 49us/step - loss: 734.2691 - acc: 0.0583 - mean\_s  
Epoch 2490/5000  
103/103 [=====] - 0s 29us/step - loss: 733.7725 - acc: 0.0583 - mean\_s  
Epoch 2491/5000  
103/103 [=====] - 0s 29us/step - loss: 733.3083 - acc: 0.0583 - mean\_s  
Epoch 2492/5000  
103/103 [=====] - 0s 29us/step - loss: 732.9119 - acc: 0.0583 - mean\_s  
Epoch 2493/5000  
103/103 [=====] - 0s 49us/step - loss: 732.4279 - acc: 0.0583 - mean\_s  
Epoch 2494/5000  
103/103 [=====] - 0s 29us/step - loss: 731.9810 - acc: 0.0485 - mean\_s  
Epoch 2495/5000  
103/103 [=====] - 0s 29us/step - loss: 731.5744 - acc: 0.0485 - mean\_s  
Epoch 2496/5000  
103/103 [=====] - 0s 29us/step - loss: 731.1093 - acc: 0.0485 - mean\_s  
Epoch 2497/5000  
103/103 [=====] - 0s 29us/step - loss: 730.6507 - acc: 0.0485 - mean\_s

Epoch 2498/5000  
103/103 [=====] - 0s 29us/step - loss: 730.2084 - acc: 0.0583 - mean\_s  
Epoch 2499/5000  
103/103 [=====] - 0s 19us/step - loss: 729.7921 - acc: 0.0583 - mean\_s  
Epoch 2500/5000  
103/103 [=====] - 0s 39us/step - loss: 729.3453 - acc: 0.0583 - mean\_s  
Epoch 2501/5000  
103/103 [=====] - 0s 29us/step - loss: 728.9236 - acc: 0.0583 - mean\_s  
Epoch 2502/5000  
103/103 [=====] - 0s 29us/step - loss: 728.4703 - acc: 0.0583 - mean\_s  
Epoch 2503/5000  
103/103 [=====] - 0s 39us/step - loss: 728.0205 - acc: 0.0583 - mean\_s  
Epoch 2504/5000  
103/103 [=====] - 0s 29us/step - loss: 727.5934 - acc: 0.0485 - mean\_s  
Epoch 2505/5000  
103/103 [=====] - 0s 29us/step - loss: 727.1302 - acc: 0.0485 - mean\_s  
Epoch 2506/5000  
103/103 [=====] - 0s 29us/step - loss: 726.7007 - acc: 0.0485 - mean\_s  
Epoch 2507/5000  
103/103 [=====] - 0s 19us/step - loss: 726.2965 - acc: 0.0485 - mean\_s  
Epoch 2508/5000  
103/103 [=====] - 0s 29us/step - loss: 725.8422 - acc: 0.0485 - mean\_s  
Epoch 2509/5000  
103/103 [=====] - 0s 39us/step - loss: 725.3732 - acc: 0.0485 - mean\_s  
Epoch 2510/5000  
103/103 [=====] - 0s 29us/step - loss: 725.0043 - acc: 0.0583 - mean\_s  
Epoch 2511/5000  
103/103 [=====] - 0s 29us/step - loss: 724.5793 - acc: 0.0485 - mean\_s  
Epoch 2512/5000  
103/103 [=====] - 0s 29us/step - loss: 724.0897 - acc: 0.0485 - mean\_s  
Epoch 2513/5000  
103/103 [=====] - 0s 29us/step - loss: 723.6425 - acc: 0.0485 - mean\_s  
Epoch 2514/5000  
103/103 [=====] - 0s 29us/step - loss: 723.2785 - acc: 0.0485 - mean\_s  
Epoch 2515/5000  
103/103 [=====] - 0s 39us/step - loss: 722.7996 - acc: 0.0485 - mean\_s  
Epoch 2516/5000  
103/103 [=====] - 0s 29us/step - loss: 722.3729 - acc: 0.0485 - mean\_s  
Epoch 2517/5000  
103/103 [=====] - 0s 39us/step - loss: 721.9429 - acc: 0.0485 - mean\_s  
Epoch 2518/5000  
103/103 [=====] - 0s 29us/step - loss: 721.5045 - acc: 0.0485 - mean\_s  
Epoch 2519/5000  
103/103 [=====] - 0s 29us/step - loss: 721.1301 - acc: 0.0485 - mean\_s  
Epoch 2520/5000  
103/103 [=====] - 0s 39us/step - loss: 720.6747 - acc: 0.0485 - mean\_s  
Epoch 2521/5000  
103/103 [=====] - 0s 29us/step - loss: 720.2476 - acc: 0.0485 - mean\_s

Epoch 2522/5000  
103/103 [=====] - 0s 29us/step - loss: 719.8441 - acc: 0.0485 - mean\_s  
Epoch 2523/5000  
103/103 [=====] - 0s 39us/step - loss: 719.4081 - acc: 0.0485 - mean\_s  
Epoch 2524/5000  
103/103 [=====] - 0s 29us/step - loss: 718.9534 - acc: 0.0485 - mean\_s  
Epoch 2525/5000  
103/103 [=====] - 0s 39us/step - loss: 718.5001 - acc: 0.0485 - mean\_s  
Epoch 2526/5000  
103/103 [=====] - 0s 29us/step - loss: 718.0657 - acc: 0.0485 - mean\_s  
Epoch 2527/5000  
103/103 [=====] - 0s 39us/step - loss: 717.6571 - acc: 0.0485 - mean\_s  
Epoch 2528/5000  
103/103 [=====] - 0s 29us/step - loss: 717.2127 - acc: 0.0485 - mean\_s  
Epoch 2529/5000  
103/103 [=====] - 0s 29us/step - loss: 716.8638 - acc: 0.0485 - mean\_s  
Epoch 2530/5000  
103/103 [=====] - 0s 29us/step - loss: 716.4100 - acc: 0.0485 - mean\_s  
Epoch 2531/5000  
103/103 [=====] - 0s 39us/step - loss: 715.9465 - acc: 0.0485 - mean\_s  
Epoch 2532/5000  
103/103 [=====] - 0s 29us/step - loss: 715.4882 - acc: 0.0485 - mean\_s  
Epoch 2533/5000  
103/103 [=====] - 0s 39us/step - loss: 715.0702 - acc: 0.0485 - mean\_s  
Epoch 2534/5000  
103/103 [=====] - 0s 39us/step - loss: 714.6866 - acc: 0.0485 - mean\_s  
Epoch 2535/5000  
103/103 [=====] - 0s 39us/step - loss: 714.2437 - acc: 0.0485 - mean\_s  
Epoch 2536/5000  
103/103 [=====] - 0s 29us/step - loss: 713.8056 - acc: 0.0485 - mean\_s  
Epoch 2537/5000  
103/103 [=====] - 0s 29us/step - loss: 713.3948 - acc: 0.0485 - mean\_s  
Epoch 2538/5000  
103/103 [=====] - 0s 39us/step - loss: 713.0289 - acc: 0.0485 - mean\_s  
Epoch 2539/5000  
103/103 [=====] - 0s 29us/step - loss: 712.5827 - acc: 0.0485 - mean\_s  
Epoch 2540/5000  
103/103 [=====] - 0s 29us/step - loss: 712.1016 - acc: 0.0485 - mean\_s  
Epoch 2541/5000  
103/103 [=====] - 0s 39us/step - loss: 711.7228 - acc: 0.0485 - mean\_s  
Epoch 2542/5000  
103/103 [=====] - 0s 29us/step - loss: 711.2980 - acc: 0.0388 - mean\_s  
Epoch 2543/5000  
103/103 [=====] - 0s 39us/step - loss: 710.8218 - acc: 0.0485 - mean\_s  
Epoch 2544/5000  
103/103 [=====] - 0s 29us/step - loss: 710.3960 - acc: 0.0485 - mean\_s  
Epoch 2545/5000  
103/103 [=====] - 0s 29us/step - loss: 709.9743 - acc: 0.0485 - mean\_s



Epoch 2546/5000  
103/103 [=====] - 0s 29us/step - loss: 709.5472 - acc: 0.0388 - mean\_s  
Epoch 2547/5000  
103/103 [=====] - 0s 29us/step - loss: 709.0623 - acc: 0.0291 - mean\_s  
Epoch 2548/5000  
103/103 [=====] - 0s 29us/step - loss: 708.6259 - acc: 0.0291 - mean\_s  
Epoch 2549/5000  
103/103 [=====] - 0s 29us/step - loss: 708.2453 - acc: 0.0291 - mean\_s  
Epoch 2550/5000  
103/103 [=====] - 0s 29us/step - loss: 707.8349 - acc: 0.0291 - mean\_s  
Epoch 2551/5000  
103/103 [=====] - 0s 29us/step - loss: 707.3731 - acc: 0.0291 - mean\_s  
Epoch 2552/5000  
103/103 [=====] - 0s 39us/step - loss: 706.9279 - acc: 0.0291 - mean\_s  
Epoch 2553/5000  
103/103 [=====] - 0s 29us/step - loss: 706.5367 - acc: 0.0291 - mean\_s  
Epoch 2554/5000  
103/103 [=====] - 0s 29us/step - loss: 706.0860 - acc: 0.0291 - mean\_s  
Epoch 2555/5000  
103/103 [=====] - 0s 39us/step - loss: 705.6547 - acc: 0.0291 - mean\_s  
Epoch 2556/5000  
103/103 [=====] - 0s 29us/step - loss: 705.2047 - acc: 0.0291 - mean\_s  
Epoch 2557/5000  
103/103 [=====] - 0s 39us/step - loss: 704.7747 - acc: 0.0291 - mean\_s  
Epoch 2558/5000  
103/103 [=====] - 0s 29us/step - loss: 704.3044 - acc: 0.0291 - mean\_s  
Epoch 2559/5000  
103/103 [=====] - 0s 39us/step - loss: 703.8547 - acc: 0.0291 - mean\_s  
Epoch 2560/5000  
103/103 [=====] - 0s 29us/step - loss: 703.4357 - acc: 0.0291 - mean\_s  
Epoch 2561/5000  
103/103 [=====] - 0s 39us/step - loss: 702.9877 - acc: 0.0291 - mean\_s  
Epoch 2562/5000  
103/103 [=====] - 0s 39us/step - loss: 702.5624 - acc: 0.0194 - mean\_s  
Epoch 2563/5000  
103/103 [=====] - 0s 29us/step - loss: 702.1444 - acc: 0.0194 - mean\_s  
Epoch 2564/5000  
103/103 [=====] - 0s 39us/step - loss: 701.6685 - acc: 0.0194 - mean\_s  
Epoch 2565/5000  
103/103 [=====] - 0s 29us/step - loss: 701.2793 - acc: 0.0194 - mean\_s  
Epoch 2566/5000  
103/103 [=====] - 0s 29us/step - loss: 700.8022 - acc: 0.0194 - mean\_s  
Epoch 2567/5000  
103/103 [=====] - 0s 29us/step - loss: 700.3934 - acc: 0.0194 - mean\_s  
Epoch 2568/5000  
103/103 [=====] - 0s 19us/step - loss: 699.9296 - acc: 0.0194 - mean\_s  
Epoch 2569/5000  
103/103 [=====] - 0s 29us/step - loss: 699.4960 - acc: 0.0291 - mean\_s

Epoch 2570/5000  
103/103 [=====] - 0s 29us/step - loss: 699.0466 - acc: 0.0291 - mean\_s  
Epoch 2571/5000  
103/103 [=====] - 0s 39us/step - loss: 698.6260 - acc: 0.0194 - mean\_s  
Epoch 2572/5000  
103/103 [=====] - 0s 29us/step - loss: 698.2196 - acc: 0.0194 - mean\_s  
Epoch 2573/5000  
103/103 [=====] - 0s 29us/step - loss: 697.7379 - acc: 0.0291 - mean\_s  
Epoch 2574/5000  
103/103 [=====] - 0s 29us/step - loss: 697.3564 - acc: 0.0291 - mean\_s  
Epoch 2575/5000  
103/103 [=====] - 0s 39us/step - loss: 696.8997 - acc: 0.0291 - mean\_s  
Epoch 2576/5000  
103/103 [=====] - 0s 29us/step - loss: 696.4484 - acc: 0.0291 - mean\_s  
Epoch 2577/5000  
103/103 [=====] - 0s 29us/step - loss: 696.0202 - acc: 0.0291 - mean\_s  
Epoch 2578/5000  
103/103 [=====] - 0s 39us/step - loss: 695.6116 - acc: 0.0291 - mean\_s  
Epoch 2579/5000  
103/103 [=====] - 0s 39us/step - loss: 695.1755 - acc: 0.0291 - mean\_s  
Epoch 2580/5000  
103/103 [=====] - 0s 29us/step - loss: 694.7124 - acc: 0.0291 - mean\_s  
Epoch 2581/5000  
103/103 [=====] - 0s 39us/step - loss: 694.2590 - acc: 0.0291 - mean\_s  
Epoch 2582/5000  
103/103 [=====] - 0s 29us/step - loss: 693.8791 - acc: 0.0194 - mean\_s  
Epoch 2583/5000  
103/103 [=====] - 0s 39us/step - loss: 693.4159 - acc: 0.0194 - mean\_s  
Epoch 2584/5000  
103/103 [=====] - 0s 29us/step - loss: 693.0244 - acc: 0.0194 - mean\_s  
Epoch 2585/5000  
103/103 [=====] - 0s 29us/step - loss: 692.5913 - acc: 0.0194 - mean\_s  
Epoch 2586/5000  
103/103 [=====] - 0s 30us/step - loss: 692.1281 - acc: 0.0194 - mean\_s  
Epoch 2587/5000  
103/103 [=====] - 0s 39us/step - loss: 691.6901 - acc: 0.0194 - mean\_s  
Epoch 2588/5000  
103/103 [=====] - 0s 29us/step - loss: 691.2973 - acc: 0.0194 - mean\_s  
Epoch 2589/5000  
103/103 [=====] - 0s 39us/step - loss: 690.8482 - acc: 0.0194 - mean\_s  
Epoch 2590/5000  
103/103 [=====] - 0s 29us/step - loss: 690.4506 - acc: 0.0194 - mean\_s  
Epoch 2591/5000  
103/103 [=====] - 0s 29us/step - loss: 690.0188 - acc: 0.0194 - mean\_s  
Epoch 2592/5000  
103/103 [=====] - 0s 39us/step - loss: 689.5630 - acc: 0.0194 - mean\_s  
Epoch 2593/5000  
103/103 [=====] - 0s 39us/step - loss: 689.1396 - acc: 0.0291 - mean\_s

Epoch 2594/5000  
103/103 [=====] - 0s 39us/step - loss: 688.7736 - acc: 0.0291 - mean\_s  
Epoch 2595/5000  
103/103 [=====] - 0s 39us/step - loss: 688.3120 - acc: 0.0291 - mean\_s  
Epoch 2596/5000  
103/103 [=====] - 0s 29us/step - loss: 687.9231 - acc: 0.0291 - mean\_s  
Epoch 2597/5000  
103/103 [=====] - 0s 29us/step - loss: 687.5657 - acc: 0.0194 - mean\_s  
Epoch 2598/5000  
103/103 [=====] - 0s 19us/step - loss: 687.1216 - acc: 0.0194 - mean\_s  
Epoch 2599/5000  
103/103 [=====] - 0s 39us/step - loss: 686.6362 - acc: 0.0291 - mean\_s  
Epoch 2600/5000  
103/103 [=====] - 0s 29us/step - loss: 686.2065 - acc: 0.0291 - mean\_s  
Epoch 2601/5000  
103/103 [=====] - 0s 39us/step - loss: 685.8718 - acc: 0.0291 - mean\_s  
Epoch 2602/5000  
103/103 [=====] - 0s 39us/step - loss: 685.5035 - acc: 0.0291 - mean\_s  
Epoch 2603/5000  
103/103 [=====] - 0s 39us/step - loss: 684.9297 - acc: 0.0291 - mean\_s  
Epoch 2604/5000  
103/103 [=====] - 0s 39us/step - loss: 684.5425 - acc: 0.0291 - mean\_s  
Epoch 2605/5000  
103/103 [=====] - 0s 29us/step - loss: 684.1380 - acc: 0.0291 - mean\_s  
Epoch 2606/5000  
103/103 [=====] - 0s 29us/step - loss: 683.7299 - acc: 0.0291 - mean\_s  
Epoch 2607/5000  
103/103 [=====] - 0s 39us/step - loss: 683.3300 - acc: 0.0291 - mean\_s  
Epoch 2608/5000  
103/103 [=====] - 0s 29us/step - loss: 682.8984 - acc: 0.0291 - mean\_s  
Epoch 2609/5000  
103/103 [=====] - 0s 29us/step - loss: 682.4597 - acc: 0.0291 - mean\_s  
Epoch 2610/5000  
103/103 [=====] - 0s 39us/step - loss: 682.0140 - acc: 0.0291 - mean\_s  
Epoch 2611/5000  
103/103 [=====] - 0s 29us/step - loss: 681.5666 - acc: 0.0291 - mean\_s  
Epoch 2612/5000  
103/103 [=====] - 0s 29us/step - loss: 681.1805 - acc: 0.0291 - mean\_s  
Epoch 2613/5000  
103/103 [=====] - 0s 29us/step - loss: 680.7851 - acc: 0.0291 - mean\_s  
Epoch 2614/5000  
103/103 [=====] - 0s 39us/step - loss: 680.3426 - acc: 0.0291 - mean\_s  
Epoch 2615/5000  
103/103 [=====] - 0s 29us/step - loss: 679.8990 - acc: 0.0291 - mean\_s  
Epoch 2616/5000  
103/103 [=====] - 0s 39us/step - loss: 679.5155 - acc: 0.0291 - mean\_s  
Epoch 2617/5000  
103/103 [=====] - 0s 29us/step - loss: 679.1160 - acc: 0.0291 - mean\_s

Epoch 2618/5000  
103/103 [=====] - 0s 29us/step - loss: 678.7209 - acc: 0.0291 - mean\_s  
Epoch 2619/5000  
103/103 [=====] - 0s 29us/step - loss: 678.2499 - acc: 0.0291 - mean\_s  
Epoch 2620/5000  
103/103 [=====] - 0s 29us/step - loss: 677.8084 - acc: 0.0291 - mean\_s  
Epoch 2621/5000  
103/103 [=====] - 0s 39us/step - loss: 677.4031 - acc: 0.0194 - mean\_s  
Epoch 2622/5000  
103/103 [=====] - 0s 29us/step - loss: 676.9933 - acc: 0.0194 - mean\_s  
Epoch 2623/5000  
103/103 [=====] - 0s 39us/step - loss: 676.5722 - acc: 0.0194 - mean\_s  
Epoch 2624/5000  
103/103 [=====] - 0s 29us/step - loss: 676.1288 - acc: 0.0194 - mean\_s  
Epoch 2625/5000  
103/103 [=====] - 0s 29us/step - loss: 675.7438 - acc: 0.0291 - mean\_s  
Epoch 2626/5000  
103/103 [=====] - 0s 29us/step - loss: 675.3674 - acc: 0.0291 - mean\_s  
Epoch 2627/5000  
103/103 [=====] - 0s 29us/step - loss: 674.9374 - acc: 0.0291 - mean\_s  
Epoch 2628/5000  
103/103 [=====] - 0s 39us/step - loss: 674.5685 - acc: 0.0291 - mean\_s  
Epoch 2629/5000  
103/103 [=====] - 0s 39us/step - loss: 674.1385 - acc: 0.0291 - mean\_s  
Epoch 2630/5000  
103/103 [=====] - 0s 29us/step - loss: 673.7244 - acc: 0.0291 - mean\_s  
Epoch 2631/5000  
103/103 [=====] - 0s 29us/step - loss: 673.3477 - acc: 0.0291 - mean\_s  
Epoch 2632/5000  
103/103 [=====] - 0s 29us/step - loss: 672.9076 - acc: 0.0291 - mean\_s  
Epoch 2633/5000  
103/103 [=====] - 0s 29us/step - loss: 672.5001 - acc: 0.0291 - mean\_s  
Epoch 2634/5000  
103/103 [=====] - 0s 29us/step - loss: 672.1140 - acc: 0.0291 - mean\_s  
Epoch 2635/5000  
103/103 [=====] - 0s 29us/step - loss: 671.7013 - acc: 0.0291 - mean\_s  
Epoch 2636/5000  
103/103 [=====] - 0s 39us/step - loss: 671.3287 - acc: 0.0291 - mean\_s  
Epoch 2637/5000  
103/103 [=====] - 0s 29us/step - loss: 670.9360 - acc: 0.0291 - mean\_s  
Epoch 2638/5000  
103/103 [=====] - 0s 29us/step - loss: 670.5335 - acc: 0.0291 - mean\_s  
Epoch 2639/5000  
103/103 [=====] - 0s 39us/step - loss: 670.1294 - acc: 0.0291 - mean\_s  
Epoch 2640/5000  
103/103 [=====] - 0s 29us/step - loss: 669.6968 - acc: 0.0291 - mean\_s  
Epoch 2641/5000  
103/103 [=====] - 0s 39us/step - loss: 669.3235 - acc: 0.0291 - mean\_s

Epoch 2642/5000  
103/103 [=====] - 0s 29us/step - loss: 668.8990 - acc: 0.0291 - mean\_s  
Epoch 2643/5000  
103/103 [=====] - 0s 39us/step - loss: 668.5340 - acc: 0.0291 - mean\_s  
Epoch 2644/5000  
103/103 [=====] - 0s 29us/step - loss: 668.1338 - acc: 0.0291 - mean\_s  
Epoch 2645/5000  
103/103 [=====] - 0s 19us/step - loss: 667.7030 - acc: 0.0291 - mean\_s  
Epoch 2646/5000  
103/103 [=====] - 0s 39us/step - loss: 667.2670 - acc: 0.0291 - mean\_s  
Epoch 2647/5000  
103/103 [=====] - 0s 39us/step - loss: 666.8376 - acc: 0.0291 - mean\_s  
Epoch 2648/5000  
103/103 [=====] - 0s 27us/step - loss: 666.4262 - acc: 0.0291 - mean\_s  
Epoch 2649/5000  
103/103 [=====] - 0s 39us/step - loss: 666.0262 - acc: 0.0291 - mean\_s  
Epoch 2650/5000  
103/103 [=====] - 0s 29us/step - loss: 665.6490 - acc: 0.0291 - mean\_s  
Epoch 2651/5000  
103/103 [=====] - 0s 29us/step - loss: 665.2325 - acc: 0.0291 - mean\_s  
Epoch 2652/5000  
103/103 [=====] - 0s 19us/step - loss: 664.7884 - acc: 0.0291 - mean\_s  
Epoch 2653/5000  
103/103 [=====] - 0s 39us/step - loss: 664.3844 - acc: 0.0291 - mean\_s  
Epoch 2654/5000  
103/103 [=====] - 0s 29us/step - loss: 663.9755 - acc: 0.0291 - mean\_s  
Epoch 2655/5000  
103/103 [=====] - 0s 29us/step - loss: 663.5530 - acc: 0.0291 - mean\_s  
Epoch 2656/5000  
103/103 [=====] - 0s 19us/step - loss: 663.1391 - acc: 0.0291 - mean\_s  
Epoch 2657/5000  
103/103 [=====] - 0s 39us/step - loss: 662.7294 - acc: 0.0194 - mean\_s  
Epoch 2658/5000  
103/103 [=====] - 0s 39us/step - loss: 662.3770 - acc: 0.0194 - mean\_s  
Epoch 2659/5000  
103/103 [=====] - 0s 29us/step - loss: 661.8967 - acc: 0.0194 - mean\_s  
Epoch 2660/5000  
103/103 [=====] - 0s 39us/step - loss: 661.5012 - acc: 0.0291 - mean\_s  
Epoch 2661/5000  
103/103 [=====] - 0s 29us/step - loss: 661.0860 - acc: 0.0291 - mean\_s  
Epoch 2662/5000  
103/103 [=====] - 0s 29us/step - loss: 660.6843 - acc: 0.0194 - mean\_s  
Epoch 2663/5000  
103/103 [=====] - 0s 29us/step - loss: 660.2712 - acc: 0.0194 - mean\_s  
Epoch 2664/5000  
103/103 [=====] - 0s 29us/step - loss: 659.8588 - acc: 0.0194 - mean\_s  
Epoch 2665/5000  
103/103 [=====] - 0s 29us/step - loss: 659.4451 - acc: 0.0194 - mean\_s

Epoch 2666/5000  
103/103 [=====] - 0s 29us/step - loss: 658.9871 - acc: 0.0194 - mean\_s  
Epoch 2667/5000  
103/103 [=====] - 0s 29us/step - loss: 658.6103 - acc: 0.0194 - mean\_s  
Epoch 2668/5000  
103/103 [=====] - 0s 39us/step - loss: 658.1685 - acc: 0.0194 - mean\_s  
Epoch 2669/5000  
103/103 [=====] - 0s 29us/step - loss: 657.7976 - acc: 0.0194 - mean\_s  
Epoch 2670/5000  
103/103 [=====] - 0s 39us/step - loss: 657.3465 - acc: 0.0194 - mean\_s  
Epoch 2671/5000  
103/103 [=====] - 0s 29us/step - loss: 656.9025 - acc: 0.0194 - mean\_s  
Epoch 2672/5000  
103/103 [=====] - 0s 29us/step - loss: 656.4999 - acc: 0.0194 - mean\_s  
Epoch 2673/5000  
103/103 [=====] - 0s 39us/step - loss: 656.1179 - acc: 0.0194 - mean\_s  
Epoch 2674/5000  
103/103 [=====] - 0s 29us/step - loss: 655.6942 - acc: 0.0194 - mean\_s  
Epoch 2675/5000  
103/103 [=====] - 0s 29us/step - loss: 655.2418 - acc: 0.0194 - mean\_s  
Epoch 2676/5000  
103/103 [=====] - 0s 39us/step - loss: 654.8498 - acc: 0.0194 - mean\_s  
Epoch 2677/5000  
103/103 [=====] - 0s 29us/step - loss: 654.4879 - acc: 0.0194 - mean\_s  
Epoch 2678/5000  
103/103 [=====] - 0s 29us/step - loss: 654.0731 - acc: 0.0194 - mean\_s  
Epoch 2679/5000  
103/103 [=====] - 0s 39us/step - loss: 653.6744 - acc: 0.0291 - mean\_s  
Epoch 2680/5000  
103/103 [=====] - 0s 29us/step - loss: 653.2705 - acc: 0.0291 - mean\_s  
Epoch 2681/5000  
103/103 [=====] - 0s 29us/step - loss: 652.8694 - acc: 0.0291 - mean\_s  
Epoch 2682/5000  
103/103 [=====] - 0s 29us/step - loss: 652.4798 - acc: 0.0291 - mean\_s  
Epoch 2683/5000  
103/103 [=====] - 0s 29us/step - loss: 652.1110 - acc: 0.0291 - mean\_s  
Epoch 2684/5000  
103/103 [=====] - 0s 29us/step - loss: 651.6760 - acc: 0.0291 - mean\_s  
Epoch 2685/5000  
103/103 [=====] - 0s 29us/step - loss: 651.2388 - acc: 0.0291 - mean\_s  
Epoch 2686/5000  
103/103 [=====] - 0s 29us/step - loss: 650.9165 - acc: 0.0291 - mean\_s  
Epoch 2687/5000  
103/103 [=====] - 0s 29us/step - loss: 650.4692 - acc: 0.0291 - mean\_s  
Epoch 2688/5000  
103/103 [=====] - 0s 39us/step - loss: 650.0732 - acc: 0.0291 - mean\_s  
Epoch 2689/5000  
103/103 [=====] - 0s 29us/step - loss: 649.6779 - acc: 0.0291 - mean\_s

Epoch 2690/5000  
103/103 [=====] - 0s 39us/step - loss: 649.3153 - acc: 0.0291 - mean\_s  
Epoch 2691/5000  
103/103 [=====] - 0s 39us/step - loss: 648.8844 - acc: 0.0291 - mean\_s  
Epoch 2692/5000  
103/103 [=====] - 0s 29us/step - loss: 648.4900 - acc: 0.0291 - mean\_s  
Epoch 2693/5000  
103/103 [=====] - 0s 39us/step - loss: 648.0585 - acc: 0.0291 - mean\_s  
Epoch 2694/5000  
103/103 [=====] - 0s 49us/step - loss: 647.6865 - acc: 0.0291 - mean\_s  
Epoch 2695/5000  
103/103 [=====] - 0s 49us/step - loss: 647.3256 - acc: 0.0291 - mean\_s  
Epoch 2696/5000  
103/103 [=====] - 0s 29us/step - loss: 646.9359 - acc: 0.0291 - mean\_s  
Epoch 2697/5000  
103/103 [=====] - 0s 39us/step - loss: 646.5584 - acc: 0.0194 - mean\_s  
Epoch 2698/5000  
103/103 [=====] - 0s 39us/step - loss: 646.1865 - acc: 0.0194 - mean\_s  
Epoch 2699/5000  
103/103 [=====] - 0s 29us/step - loss: 645.7607 - acc: 0.0194 - mean\_s  
Epoch 2700/5000  
103/103 [=====] - 0s 29us/step - loss: 645.3548 - acc: 0.0194 - mean\_s  
Epoch 2701/5000  
103/103 [=====] - 0s 39us/step - loss: 644.9752 - acc: 0.0194 - mean\_s  
Epoch 2702/5000  
103/103 [=====] - 0s 29us/step - loss: 644.5665 - acc: 0.0194 - mean\_s  
Epoch 2703/5000  
103/103 [=====] - 0s 39us/step - loss: 644.2253 - acc: 0.0194 - mean\_s  
Epoch 2704/5000  
103/103 [=====] - 0s 29us/step - loss: 643.8637 - acc: 0.0194 - mean\_s  
Epoch 2705/5000  
103/103 [=====] - 0s 29us/step - loss: 643.4530 - acc: 0.0194 - mean\_s  
Epoch 2706/5000  
103/103 [=====] - 0s 29us/step - loss: 643.0834 - acc: 0.0194 - mean\_s  
Epoch 2707/5000  
103/103 [=====] - 0s 29us/step - loss: 642.6885 - acc: 0.0194 - mean\_s  
Epoch 2708/5000  
103/103 [=====] - 0s 49us/step - loss: 642.2872 - acc: 0.0194 - mean\_s  
Epoch 2709/5000  
103/103 [=====] - 0s 29us/step - loss: 641.9307 - acc: 0.0194 - mean\_s  
Epoch 2710/5000  
103/103 [=====] - 0s 39us/step - loss: 641.5447 - acc: 0.0194 - mean\_s  
Epoch 2711/5000  
103/103 [=====] - 0s 29us/step - loss: 641.1309 - acc: 0.0194 - mean\_s  
Epoch 2712/5000  
103/103 [=====] - 0s 29us/step - loss: 640.7581 - acc: 0.0194 - mean\_s  
Epoch 2713/5000  
103/103 [=====] - 0s 39us/step - loss: 640.3457 - acc: 0.0194 - mean\_s

Epoch 2714/5000  
103/103 [=====] - 0s 39us/step - loss: 639.9662 - acc: 0.0194 - mean\_s  
Epoch 2715/5000  
103/103 [=====] - 0s 29us/step - loss: 639.6457 - acc: 0.0194 - mean\_s  
Epoch 2716/5000  
103/103 [=====] - 0s 29us/step - loss: 639.1878 - acc: 0.0194 - mean\_s  
Epoch 2717/5000  
103/103 [=====] - 0s 39us/step - loss: 638.7845 - acc: 0.0194 - mean\_s  
Epoch 2718/5000  
103/103 [=====] - 0s 29us/step - loss: 638.4066 - acc: 0.0194 - mean\_s  
Epoch 2719/5000  
103/103 [=====] - 0s 29us/step - loss: 638.0085 - acc: 0.0194 - mean\_s  
Epoch 2720/5000  
103/103 [=====] - 0s 29us/step - loss: 637.6188 - acc: 0.0194 - mean\_s  
Epoch 2721/5000  
103/103 [=====] - 0s 39us/step - loss: 637.3062 - acc: 0.0194 - mean\_s  
Epoch 2722/5000  
103/103 [=====] - 0s 39us/step - loss: 636.8513 - acc: 0.0194 - mean\_s  
Epoch 2723/5000  
103/103 [=====] - 0s 29us/step - loss: 636.4863 - acc: 0.0194 - mean\_s  
Epoch 2724/5000  
103/103 [=====] - 0s 29us/step - loss: 636.1270 - acc: 0.0194 - mean\_s  
Epoch 2725/5000  
103/103 [=====] - 0s 39us/step - loss: 635.7283 - acc: 0.0194 - mean\_s  
Epoch 2726/5000  
103/103 [=====] - 0s 29us/step - loss: 635.3287 - acc: 0.0194 - mean\_s  
Epoch 2727/5000  
103/103 [=====] - 0s 19us/step - loss: 634.9561 - acc: 0.0097 - mean\_s  
Epoch 2728/5000  
103/103 [=====] - 0s 29us/step - loss: 634.5786 - acc: 0.0097 - mean\_s  
Epoch 2729/5000  
103/103 [=====] - 0s 29us/step - loss: 634.2195 - acc: 0.0097 - mean\_s  
Epoch 2730/5000  
103/103 [=====] - 0s 39us/step - loss: 633.8581 - acc: 0.0097 - mean\_s  
Epoch 2731/5000  
103/103 [=====] - 0s 29us/step - loss: 633.4502 - acc: 0.0097 - mean\_s  
Epoch 2732/5000  
103/103 [=====] - 0s 29us/step - loss: 633.0743 - acc: 0.0097 - mean\_s  
Epoch 2733/5000  
103/103 [=====] - 0s 39us/step - loss: 632.6854 - acc: 0.0194 - mean\_s  
Epoch 2734/5000  
103/103 [=====] - 0s 29us/step - loss: 632.2731 - acc: 0.0194 - mean\_s  
Epoch 2735/5000  
103/103 [=====] - 0s 29us/step - loss: 631.9181 - acc: 0.0194 - mean\_s  
Epoch 2736/5000  
103/103 [=====] - 0s 39us/step - loss: 631.5640 - acc: 0.0194 - mean\_s  
Epoch 2737/5000  
103/103 [=====] - 0s 29us/step - loss: 631.1548 - acc: 0.0194 - mean\_s



Epoch 2738/5000  
103/103 [=====] - 0s 29us/step - loss: 630.8115 - acc: 0.0097 - mean\_s  
Epoch 2739/5000  
103/103 [=====] - 0s 29us/step - loss: 630.3693 - acc: 0.0097 - mean\_s  
Epoch 2740/5000  
103/103 [=====] - 0s 29us/step - loss: 630.0335 - acc: 0.0097 - mean\_s  
Epoch 2741/5000  
103/103 [=====] - 0s 19us/step - loss: 629.6392 - acc: 0.0097 - mean\_s  
Epoch 2742/5000  
103/103 [=====] - 0s 39us/step - loss: 629.2261 - acc: 0.0097 - mean\_s  
Epoch 2743/5000  
103/103 [=====] - 0s 29us/step - loss: 628.8438 - acc: 0.0097 - mean\_s  
Epoch 2744/5000  
103/103 [=====] - 0s 39us/step - loss: 628.4460 - acc: 0.0097 - mean\_s  
Epoch 2745/5000  
103/103 [=====] - 0s 29us/step - loss: 628.1130 - acc: 0.0097 - mean\_s  
Epoch 2746/5000  
103/103 [=====] - 0s 39us/step - loss: 627.7261 - acc: 0.0097 - mean\_s  
Epoch 2747/5000  
103/103 [=====] - 0s 29us/step - loss: 627.3228 - acc: 0.0097 - mean\_s  
Epoch 2748/5000  
103/103 [=====] - 0s 29us/step - loss: 627.0294 - acc: 0.0097 - mean\_s  
Epoch 2749/5000  
103/103 [=====] - 0s 39us/step - loss: 626.6108 - acc: 0.0097 - mean\_s  
Epoch 2750/5000  
103/103 [=====] - 0s 29us/step - loss: 626.2149 - acc: 0.0194 - mean\_s  
Epoch 2751/5000  
103/103 [=====] - 0s 29us/step - loss: 625.9082 - acc: 0.0194 - mean\_s  
Epoch 2752/5000  
103/103 [=====] - 0s 29us/step - loss: 625.5377 - acc: 0.0194 - mean\_s  
Epoch 2753/5000  
103/103 [=====] - 0s 29us/step - loss: 625.1439 - acc: 0.0194 - mean\_s  
Epoch 2754/5000  
103/103 [=====] - 0s 29us/step - loss: 624.7709 - acc: 0.0194 - mean\_s  
Epoch 2755/5000  
103/103 [=====] - 0s 19us/step - loss: 624.4039 - acc: 0.0194 - mean\_s  
Epoch 2756/5000  
103/103 [=====] - 0s 29us/step - loss: 624.0236 - acc: 0.0194 - mean\_s  
Epoch 2757/5000  
103/103 [=====] - 0s 19us/step - loss: 623.7007 - acc: 0.0194 - mean\_s  
Epoch 2758/5000  
103/103 [=====] - 0s 19us/step - loss: 623.2829 - acc: 0.0194 - mean\_s  
Epoch 2759/5000  
103/103 [=====] - 0s 29us/step - loss: 622.8907 - acc: 0.0194 - mean\_s  
Epoch 2760/5000  
103/103 [=====] - 0s 29us/step - loss: 622.5751 - acc: 0.0194 - mean\_s  
Epoch 2761/5000  
103/103 [=====] - 0s 39us/step - loss: 622.1653 - acc: 0.0194 - mean\_s

Epoch 2762/5000  
103/103 [=====] - 0s 29us/step - loss: 621.7780 - acc: 0.0194 - mean\_s  
Epoch 2763/5000  
103/103 [=====] - 0s 29us/step - loss: 621.3826 - acc: 0.0194 - mean\_s  
Epoch 2764/5000  
103/103 [=====] - 0s 39us/step - loss: 621.0333 - acc: 0.0194 - mean\_s  
Epoch 2765/5000  
103/103 [=====] - 0s 29us/step - loss: 620.6568 - acc: 0.0194 - mean\_s  
Epoch 2766/5000  
103/103 [=====] - 0s 39us/step - loss: 620.2908 - acc: 0.0194 - mean\_s  
Epoch 2767/5000  
103/103 [=====] - 0s 29us/step - loss: 619.9776 - acc: 0.0097 - mean\_s  
Epoch 2768/5000  
103/103 [=====] - 0s 39us/step - loss: 619.5972 - acc: 0.0097 - mean\_s  
Epoch 2769/5000  
103/103 [=====] - 0s 29us/step - loss: 619.2269 - acc: 0.0194 - mean\_s  
Epoch 2770/5000  
103/103 [=====] - 0s 39us/step - loss: 618.8239 - acc: 0.0194 - mean\_s  
Epoch 2771/5000  
103/103 [=====] - 0s 29us/step - loss: 618.4766 - acc: 0.0194 - mean\_s  
Epoch 2772/5000  
103/103 [=====] - 0s 29us/step - loss: 618.1255 - acc: 0.0194 - mean\_s  
Epoch 2773/5000  
103/103 [=====] - 0s 29us/step - loss: 617.7357 - acc: 0.0194 - mean\_s  
Epoch 2774/5000  
103/103 [=====] - 0s 29us/step - loss: 617.3449 - acc: 0.0194 - mean\_s  
Epoch 2775/5000  
103/103 [=====] - 0s 39us/step - loss: 616.9958 - acc: 0.0194 - mean\_s  
Epoch 2776/5000  
103/103 [=====] - 0s 29us/step - loss: 616.7687 - acc: 0.0194 - mean\_s  
Epoch 2777/5000  
103/103 [=====] - 0s 39us/step - loss: 616.4011 - acc: 0.0194 - mean\_s  
Epoch 2778/5000  
103/103 [=====] - 0s 29us/step - loss: 616.0683 - acc: 0.0194 - mean\_s  
Epoch 2779/5000  
103/103 [=====] - 0s 29us/step - loss: 615.7643 - acc: 0.0194 - mean\_s  
Epoch 2780/5000  
103/103 [=====] - 0s 29us/step - loss: 615.4241 - acc: 0.0194 - mean\_s  
Epoch 2781/5000  
103/103 [=====] - 0s 29us/step - loss: 615.1395 - acc: 0.0194 - mean\_s  
Epoch 2782/5000  
103/103 [=====] - 0s 29us/step - loss: 614.7978 - acc: 0.0291 - mean\_s  
Epoch 2783/5000  
103/103 [=====] - 0s 39us/step - loss: 614.4818 - acc: 0.0291 - mean\_s  
Epoch 2784/5000  
103/103 [=====] - 0s 29us/step - loss: 614.1233 - acc: 0.0291 - mean\_s  
Epoch 2785/5000  
103/103 [=====] - 0s 39us/step - loss: 613.7793 - acc: 0.0291 - mean\_s

Epoch 2786/5000  
103/103 [=====] - 0s 39us/step - loss: 613.4593 - acc: 0.0291 - mean\_s  
Epoch 2787/5000  
103/103 [=====] - 0s 29us/step - loss: 613.1492 - acc: 0.0291 - mean\_s  
Epoch 2788/5000  
103/103 [=====] - 0s 29us/step - loss: 612.7899 - acc: 0.0291 - mean\_s  
Epoch 2789/5000  
103/103 [=====] - 0s 29us/step - loss: 612.4021 - acc: 0.0388 - mean\_s  
Epoch 2790/5000  
103/103 [=====] - 0s 29us/step - loss: 612.0881 - acc: 0.0388 - mean\_s  
Epoch 2791/5000  
103/103 [=====] - 0s 39us/step - loss: 611.7962 - acc: 0.0388 - mean\_s  
Epoch 2792/5000  
103/103 [=====] - 0s 29us/step - loss: 611.4852 - acc: 0.0388 - mean\_s  
Epoch 2793/5000  
103/103 [=====] - 0s 29us/step - loss: 611.1896 - acc: 0.0388 - mean\_s  
Epoch 2794/5000  
103/103 [=====] - 0s 39us/step - loss: 610.8590 - acc: 0.0388 - mean\_s  
Epoch 2795/5000  
103/103 [=====] - 0s 39us/step - loss: 610.5458 - acc: 0.0388 - mean\_s  
Epoch 2796/5000  
103/103 [=====] - 0s 29us/step - loss: 610.1984 - acc: 0.0388 - mean\_s  
Epoch 2797/5000  
103/103 [=====] - 0s 39us/step - loss: 609.8779 - acc: 0.0388 - mean\_s  
Epoch 2798/5000  
103/103 [=====] - 0s 48us/step - loss: 609.5866 - acc: 0.0388 - mean\_s  
Epoch 2799/5000  
103/103 [=====] - 0s 29us/step - loss: 609.2706 - acc: 0.0388 - mean\_s  
Epoch 2800/5000  
103/103 [=====] - 0s 29us/step - loss: 608.9438 - acc: 0.0388 - mean\_s  
Epoch 2801/5000  
103/103 [=====] - 0s 39us/step - loss: 608.6001 - acc: 0.0388 - mean\_s  
Epoch 2802/5000  
103/103 [=====] - 0s 29us/step - loss: 608.2808 - acc: 0.0388 - mean\_s  
Epoch 2803/5000  
103/103 [=====] - 0s 39us/step - loss: 607.9672 - acc: 0.0388 - mean\_s  
Epoch 2804/5000  
103/103 [=====] - 0s 29us/step - loss: 607.6243 - acc: 0.0388 - mean\_s  
Epoch 2805/5000  
103/103 [=====] - 0s 29us/step - loss: 607.3313 - acc: 0.0388 - mean\_s  
Epoch 2806/5000  
103/103 [=====] - 0s 29us/step - loss: 607.0156 - acc: 0.0388 - mean\_s  
Epoch 2807/5000  
103/103 [=====] - 0s 29us/step - loss: 606.6668 - acc: 0.0388 - mean\_s  
Epoch 2808/5000  
103/103 [=====] - 0s 29us/step - loss: 606.3885 - acc: 0.0388 - mean\_s  
Epoch 2809/5000  
103/103 [=====] - 0s 29us/step - loss: 606.0702 - acc: 0.0388 - mean\_s

Epoch 2810/5000  
103/103 [=====] - 0s 39us/step - loss: 605.7372 - acc: 0.0388 - mean\_s  
Epoch 2811/5000  
103/103 [=====] - 0s 29us/step - loss: 605.4555 - acc: 0.0291 - mean\_s  
Epoch 2812/5000  
103/103 [=====] - 0s 29us/step - loss: 605.1293 - acc: 0.0291 - mean\_s  
Epoch 2813/5000  
103/103 [=====] - 0s 19us/step - loss: 604.8396 - acc: 0.0291 - mean\_s  
Epoch 2814/5000  
103/103 [=====] - 0s 39us/step - loss: 604.4868 - acc: 0.0291 - mean\_s  
Epoch 2815/5000  
103/103 [=====] - 0s 39us/step - loss: 604.1490 - acc: 0.0291 - mean\_s  
Epoch 2816/5000  
103/103 [=====] - 0s 39us/step - loss: 603.8539 - acc: 0.0291 - mean\_s  
Epoch 2817/5000  
103/103 [=====] - 0s 29us/step - loss: 603.5641 - acc: 0.0194 - mean\_s  
Epoch 2818/5000  
103/103 [=====] - 0s 39us/step - loss: 603.2374 - acc: 0.0194 - mean\_s  
Epoch 2819/5000  
103/103 [=====] - 0s 39us/step - loss: 602.9681 - acc: 0.0194 - mean\_s  
Epoch 2820/5000  
103/103 [=====] - 0s 29us/step - loss: 602.6772 - acc: 0.0194 - mean\_s  
Epoch 2821/5000  
103/103 [=====] - 0s 39us/step - loss: 602.3478 - acc: 0.0194 - mean\_s  
Epoch 2822/5000  
103/103 [=====] - 0s 39us/step - loss: 602.0035 - acc: 0.0194 - mean\_s  
Epoch 2823/5000  
103/103 [=====] - 0s 39us/step - loss: 601.7247 - acc: 0.0291 - mean\_s  
Epoch 2824/5000  
103/103 [=====] - 0s 39us/step - loss: 601.4452 - acc: 0.0291 - mean\_s  
Epoch 2825/5000  
103/103 [=====] - 0s 29us/step - loss: 601.1275 - acc: 0.0291 - mean\_s  
Epoch 2826/5000  
103/103 [=====] - 0s 39us/step - loss: 600.7966 - acc: 0.0291 - mean\_s  
Epoch 2827/5000  
103/103 [=====] - 0s 29us/step - loss: 600.5129 - acc: 0.0291 - mean\_s  
Epoch 2828/5000  
103/103 [=====] - 0s 29us/step - loss: 600.2010 - acc: 0.0291 - mean\_s  
Epoch 2829/5000  
103/103 [=====] - 0s 39us/step - loss: 599.8793 - acc: 0.0194 - mean\_s  
Epoch 2830/5000  
103/103 [=====] - 0s 39us/step - loss: 599.6015 - acc: 0.0194 - mean\_s  
Epoch 2831/5000  
103/103 [=====] - 0s 29us/step - loss: 599.3177 - acc: 0.0194 - mean\_s  
Epoch 2832/5000  
103/103 [=====] - 0s 39us/step - loss: 599.0182 - acc: 0.0194 - mean\_s  
Epoch 2833/5000  
103/103 [=====] - 0s 29us/step - loss: 598.7097 - acc: 0.0291 - mean\_s

Epoch 2834/5000  
103/103 [=====] - 0s 29us/step - loss: 598.3931 - acc: 0.0291 - mean\_s  
Epoch 2835/5000  
103/103 [=====] - 0s 39us/step - loss: 598.1152 - acc: 0.0194 - mean\_s  
Epoch 2836/5000  
103/103 [=====] - 0s 29us/step - loss: 597.7855 - acc: 0.0291 - mean\_s  
Epoch 2837/5000  
103/103 [=====] - 0s 19us/step - loss: 597.4605 - acc: 0.0291 - mean\_s  
Epoch 2838/5000  
103/103 [=====] - 0s 29us/step - loss: 597.2243 - acc: 0.0291 - mean\_s  
Epoch 2839/5000  
103/103 [=====] - 0s 29us/step - loss: 596.8992 - acc: 0.0291 - mean\_s  
Epoch 2840/5000  
103/103 [=====] - 0s 29us/step - loss: 596.5645 - acc: 0.0291 - mean\_s  
Epoch 2841/5000  
103/103 [=====] - 0s 29us/step - loss: 596.2885 - acc: 0.0291 - mean\_s  
Epoch 2842/5000  
103/103 [=====] - 0s 39us/step - loss: 595.9819 - acc: 0.0291 - mean\_s  
Epoch 2843/5000  
103/103 [=====] - 0s 39us/step - loss: 595.6963 - acc: 0.0291 - mean\_s  
Epoch 2844/5000  
103/103 [=====] - 0s 29us/step - loss: 595.3761 - acc: 0.0291 - mean\_s  
Epoch 2845/5000  
103/103 [=====] - 0s 39us/step - loss: 595.1048 - acc: 0.0194 - mean\_s  
Epoch 2846/5000  
103/103 [=====] - 0s 39us/step - loss: 594.8270 - acc: 0.0194 - mean\_s  
Epoch 2847/5000  
103/103 [=====] - 0s 29us/step - loss: 594.4731 - acc: 0.0291 - mean\_s  
Epoch 2848/5000  
103/103 [=====] - 0s 39us/step - loss: 594.1852 - acc: 0.0291 - mean\_s  
Epoch 2849/5000  
103/103 [=====] - 0s 29us/step - loss: 593.8558 - acc: 0.0291 - mean\_s  
Epoch 2850/5000  
103/103 [=====] - 0s 29us/step - loss: 593.5347 - acc: 0.0291 - mean\_s  
Epoch 2851/5000  
103/103 [=====] - 0s 19us/step - loss: 593.1892 - acc: 0.0194 - mean\_s  
Epoch 2852/5000  
103/103 [=====] - 0s 29us/step - loss: 592.9578 - acc: 0.0194 - mean\_s  
Epoch 2853/5000  
103/103 [=====] - 0s 29us/step - loss: 592.6485 - acc: 0.0291 - mean\_s  
Epoch 2854/5000  
103/103 [=====] - 0s 29us/step - loss: 592.3101 - acc: 0.0291 - mean\_s  
Epoch 2855/5000  
103/103 [=====] - 0s 29us/step - loss: 592.0599 - acc: 0.0291 - mean\_s  
Epoch 2856/5000  
103/103 [=====] - 0s 29us/step - loss: 591.7700 - acc: 0.0291 - mean\_s  
Epoch 2857/5000  
103/103 [=====] - 0s 29us/step - loss: 591.4598 - acc: 0.0291 - mean\_s

Epoch 2858/5000  
103/103 [=====] - 0s 29us/step - loss: 591.1626 - acc: 0.0291 - mean\_s  
Epoch 2859/5000  
103/103 [=====] - 0s 39us/step - loss: 590.8996 - acc: 0.0291 - mean\_s  
Epoch 2860/5000  
103/103 [=====] - 0s 29us/step - loss: 590.5634 - acc: 0.0291 - mean\_s  
Epoch 2861/5000  
103/103 [=====] - 0s 29us/step - loss: 590.2235 - acc: 0.0291 - mean\_s  
Epoch 2862/5000  
103/103 [=====] - 0s 29us/step - loss: 589.9625 - acc: 0.0291 - mean\_s  
Epoch 2863/5000  
103/103 [=====] - 0s 29us/step - loss: 589.6644 - acc: 0.0291 - mean\_s  
Epoch 2864/5000  
103/103 [=====] - 0s 29us/step - loss: 589.3402 - acc: 0.0291 - mean\_s  
Epoch 2865/5000  
103/103 [=====] - 0s 29us/step - loss: 589.0649 - acc: 0.0291 - mean\_s  
Epoch 2866/5000  
103/103 [=====] - 0s 39us/step - loss: 588.7765 - acc: 0.0291 - mean\_s  
Epoch 2867/5000  
103/103 [=====] - 0s 29us/step - loss: 588.4464 - acc: 0.0291 - mean\_s  
Epoch 2868/5000  
103/103 [=====] - 0s 29us/step - loss: 588.1188 - acc: 0.0291 - mean\_s  
Epoch 2869/5000  
103/103 [=====] - 0s 29us/step - loss: 587.8802 - acc: 0.0291 - mean\_s  
Epoch 2870/5000  
103/103 [=====] - 0s 39us/step - loss: 587.6016 - acc: 0.0291 - mean\_s  
Epoch 2871/5000  
103/103 [=====] - 0s 29us/step - loss: 587.3030 - acc: 0.0291 - mean\_s  
Epoch 2872/5000  
103/103 [=====] - 0s 29us/step - loss: 586.9662 - acc: 0.0291 - mean\_s  
Epoch 2873/5000  
103/103 [=====] - 0s 29us/step - loss: 586.7152 - acc: 0.0291 - mean\_s  
Epoch 2874/5000  
103/103 [=====] - 0s 29us/step - loss: 586.3833 - acc: 0.0291 - mean\_s  
Epoch 2875/5000  
103/103 [=====] - 0s 29us/step - loss: 586.0417 - acc: 0.0291 - mean\_s  
Epoch 2876/5000  
103/103 [=====] - 0s 39us/step - loss: 585.7632 - acc: 0.0291 - mean\_s  
Epoch 2877/5000  
103/103 [=====] - 0s 29us/step - loss: 585.4431 - acc: 0.0291 - mean\_s  
Epoch 2878/5000  
103/103 [=====] - 0s 29us/step - loss: 585.1774 - acc: 0.0291 - mean\_s  
Epoch 2879/5000  
103/103 [=====] - 0s 29us/step - loss: 584.8657 - acc: 0.0291 - mean\_s  
Epoch 2880/5000  
103/103 [=====] - 0s 39us/step - loss: 584.5455 - acc: 0.0291 - mean\_s  
Epoch 2881/5000  
103/103 [=====] - 0s 39us/step - loss: 584.2582 - acc: 0.0291 - mean\_s

Epoch 2882/5000  
103/103 [=====] - 0s 29us/step - loss: 583.9651 - acc: 0.0291 - mean\_s  
Epoch 2883/5000  
103/103 [=====] - 0s 39us/step - loss: 583.6946 - acc: 0.0291 - mean\_s  
Epoch 2884/5000  
103/103 [=====] - 0s 29us/step - loss: 583.4022 - acc: 0.0291 - mean\_s  
Epoch 2885/5000  
103/103 [=====] - 0s 39us/step - loss: 583.0799 - acc: 0.0291 - mean\_s  
Epoch 2886/5000  
103/103 [=====] - 0s 39us/step - loss: 582.7692 - acc: 0.0291 - mean\_s  
Epoch 2887/5000  
103/103 [=====] - 0s 29us/step - loss: 582.4876 - acc: 0.0291 - mean\_s  
Epoch 2888/5000  
103/103 [=====] - 0s 39us/step - loss: 582.2105 - acc: 0.0291 - mean\_s  
Epoch 2889/5000  
103/103 [=====] - 0s 29us/step - loss: 581.8845 - acc: 0.0291 - mean\_s  
Epoch 2890/5000  
103/103 [=====] - 0s 29us/step - loss: 581.5644 - acc: 0.0291 - mean\_s  
Epoch 2891/5000  
103/103 [=====] - 0s 29us/step - loss: 581.2445 - acc: 0.0291 - mean\_s  
Epoch 2892/5000  
103/103 [=====] - 0s 39us/step - loss: 580.9843 - acc: 0.0291 - mean\_s  
Epoch 2893/5000  
103/103 [=====] - 0s 29us/step - loss: 580.7358 - acc: 0.0291 - mean\_s  
Epoch 2894/5000  
103/103 [=====] - 0s 29us/step - loss: 580.3793 - acc: 0.0291 - mean\_s  
Epoch 2895/5000  
103/103 [=====] - 0s 29us/step - loss: 580.0995 - acc: 0.0291 - mean\_s  
Epoch 2896/5000  
103/103 [=====] - 0s 39us/step - loss: 579.8307 - acc: 0.0291 - mean\_s  
Epoch 2897/5000  
103/103 [=====] - 0s 29us/step - loss: 579.5566 - acc: 0.0291 - mean\_s  
Epoch 2898/5000  
103/103 [=====] - 0s 19us/step - loss: 579.3052 - acc: 0.0291 - mean\_s  
Epoch 2899/5000  
103/103 [=====] - 0s 29us/step - loss: 579.0254 - acc: 0.0291 - mean\_s  
Epoch 2900/5000  
103/103 [=====] - 0s 29us/step - loss: 578.7375 - acc: 0.0291 - mean\_s  
Epoch 2901/5000  
103/103 [=====] - 0s 29us/step - loss: 578.4147 - acc: 0.0291 - mean\_s  
Epoch 2902/5000  
103/103 [=====] - 0s 29us/step - loss: 578.0992 - acc: 0.0291 - mean\_s  
Epoch 2903/5000  
103/103 [=====] - 0s 29us/step - loss: 577.7950 - acc: 0.0291 - mean\_s  
Epoch 2904/5000  
103/103 [=====] - 0s 29us/step - loss: 577.5029 - acc: 0.0291 - mean\_s  
Epoch 2905/5000  
103/103 [=====] - 0s 29us/step - loss: 577.1896 - acc: 0.0291 - mean\_s

Epoch 2906/5000  
103/103 [=====] - 0s 29us/step - loss: 576.9062 - acc: 0.0291 - mean\_s  
Epoch 2907/5000  
103/103 [=====] - 0s 39us/step - loss: 576.6276 - acc: 0.0291 - mean\_s  
Epoch 2908/5000  
103/103 [=====] - 0s 39us/step - loss: 576.3643 - acc: 0.0291 - mean\_s  
Epoch 2909/5000  
103/103 [=====] - 0s 29us/step - loss: 576.0764 - acc: 0.0291 - mean\_s  
Epoch 2910/5000  
103/103 [=====] - 0s 29us/step - loss: 575.7595 - acc: 0.0291 - mean\_s  
Epoch 2911/5000  
103/103 [=====] - 0s 29us/step - loss: 575.4243 - acc: 0.0291 - mean\_s  
Epoch 2912/5000  
103/103 [=====] - 0s 19us/step - loss: 575.1594 - acc: 0.0291 - mean\_s  
Epoch 2913/5000  
103/103 [=====] - 0s 39us/step - loss: 574.8873 - acc: 0.0291 - mean\_s  
Epoch 2914/5000  
103/103 [=====] - 0s 39us/step - loss: 574.5781 - acc: 0.0291 - mean\_s  
Epoch 2915/5000  
103/103 [=====] - 0s 39us/step - loss: 574.2559 - acc: 0.0291 - mean\_s  
Epoch 2916/5000  
103/103 [=====] - 0s 39us/step - loss: 573.9770 - acc: 0.0291 - mean\_s  
Epoch 2917/5000  
103/103 [=====] - 0s 29us/step - loss: 573.7105 - acc: 0.0291 - mean\_s  
Epoch 2918/5000  
103/103 [=====] - 0s 29us/step - loss: 573.4215 - acc: 0.0291 - mean\_s  
Epoch 2919/5000  
103/103 [=====] - 0s 29us/step - loss: 573.1566 - acc: 0.0291 - mean\_s  
Epoch 2920/5000  
103/103 [=====] - 0s 29us/step - loss: 572.8553 - acc: 0.0291 - mean\_s  
Epoch 2921/5000  
103/103 [=====] - 0s 39us/step - loss: 572.5436 - acc: 0.0291 - mean\_s  
Epoch 2922/5000  
103/103 [=====] - 0s 29us/step - loss: 572.2744 - acc: 0.0291 - mean\_s  
Epoch 2923/5000  
103/103 [=====] - 0s 39us/step - loss: 571.9987 - acc: 0.0291 - mean\_s  
Epoch 2924/5000  
103/103 [=====] - 0s 29us/step - loss: 571.7020 - acc: 0.0291 - mean\_s  
Epoch 2925/5000  
103/103 [=====] - 0s 29us/step - loss: 571.4143 - acc: 0.0291 - mean\_s  
Epoch 2926/5000  
103/103 [=====] - 0s 39us/step - loss: 571.1409 - acc: 0.0291 - mean\_s  
Epoch 2927/5000  
103/103 [=====] - 0s 29us/step - loss: 570.8389 - acc: 0.0291 - mean\_s  
Epoch 2928/5000  
103/103 [=====] - 0s 19us/step - loss: 570.5759 - acc: 0.0291 - mean\_s  
Epoch 2929/5000  
103/103 [=====] - 0s 29us/step - loss: 570.2953 - acc: 0.0291 - mean\_s



Epoch 2930/5000  
103/103 [=====] - 0s 29us/step - loss: 569.9749 - acc: 0.0291 - mean\_s  
Epoch 2931/5000  
103/103 [=====] - 0s 29us/step - loss: 569.7168 - acc: 0.0291 - mean\_s  
Epoch 2932/5000  
103/103 [=====] - 0s 29us/step - loss: 569.4761 - acc: 0.0291 - mean\_s  
Epoch 2933/5000  
103/103 [=====] - 0s 39us/step - loss: 569.1951 - acc: 0.0291 - mean\_s  
Epoch 2934/5000  
103/103 [=====] - 0s 29us/step - loss: 568.8932 - acc: 0.0291 - mean\_s  
Epoch 2935/5000  
103/103 [=====] - 0s 29us/step - loss: 568.5992 - acc: 0.0291 - mean\_s  
Epoch 2936/5000  
103/103 [=====] - 0s 29us/step - loss: 568.3062 - acc: 0.0291 - mean\_s  
Epoch 2937/5000  
103/103 [=====] - 0s 29us/step - loss: 568.0198 - acc: 0.0291 - mean\_s  
Epoch 2938/5000  
103/103 [=====] - 0s 39us/step - loss: 567.7470 - acc: 0.0291 - mean\_s  
Epoch 2939/5000  
103/103 [=====] - 0s 29us/step - loss: 567.4976 - acc: 0.0291 - mean\_s  
Epoch 2940/5000  
103/103 [=====] - 0s 39us/step - loss: 567.2234 - acc: 0.0291 - mean\_s  
Epoch 2941/5000  
103/103 [=====] - 0s 39us/step - loss: 566.9268 - acc: 0.0291 - mean\_s  
Epoch 2942/5000  
103/103 [=====] - 0s 29us/step - loss: 566.6711 - acc: 0.0291 - mean\_s  
Epoch 2943/5000  
103/103 [=====] - 0s 29us/step - loss: 566.4255 - acc: 0.0291 - mean\_s  
Epoch 2944/5000  
103/103 [=====] - 0s 29us/step - loss: 566.1304 - acc: 0.0291 - mean\_s  
Epoch 2945/5000  
103/103 [=====] - 0s 39us/step - loss: 565.8157 - acc: 0.0291 - mean\_s  
Epoch 2946/5000  
103/103 [=====] - 0s 29us/step - loss: 565.5161 - acc: 0.0291 - mean\_s  
Epoch 2947/5000  
103/103 [=====] - 0s 29us/step - loss: 565.2911 - acc: 0.0291 - mean\_s  
Epoch 2948/5000  
103/103 [=====] - 0s 39us/step - loss: 564.9846 - acc: 0.0291 - mean\_s  
Epoch 2949/5000  
103/103 [=====] - 0s 29us/step - loss: 564.7042 - acc: 0.0291 - mean\_s  
Epoch 2950/5000  
103/103 [=====] - 0s 29us/step - loss: 564.4414 - acc: 0.0291 - mean\_s  
Epoch 2951/5000  
103/103 [=====] - 0s 39us/step - loss: 564.1679 - acc: 0.0291 - mean\_s  
Epoch 2952/5000  
103/103 [=====] - 0s 29us/step - loss: 563.8214 - acc: 0.0291 - mean\_s  
Epoch 2953/5000  
103/103 [=====] - 0s 29us/step - loss: 563.5364 - acc: 0.0291 - mean\_s

Epoch 2954/5000  
103/103 [=====] - 0s 29us/step - loss: 563.2814 - acc: 0.0291 - mean\_s  
Epoch 2955/5000  
103/103 [=====] - 0s 19us/step - loss: 563.0002 - acc: 0.0291 - mean\_s  
Epoch 2956/5000  
103/103 [=====] - 0s 29us/step - loss: 562.7339 - acc: 0.0291 - mean\_s  
Epoch 2957/5000  
103/103 [=====] - 0s 29us/step - loss: 562.4453 - acc: 0.0291 - mean\_s  
Epoch 2958/5000  
103/103 [=====] - 0s 29us/step - loss: 562.1463 - acc: 0.0194 - mean\_s  
Epoch 2959/5000  
103/103 [=====] - 0s 29us/step - loss: 561.8459 - acc: 0.0194 - mean\_s  
Epoch 2960/5000  
103/103 [=====] - 0s 19us/step - loss: 561.6233 - acc: 0.0194 - mean\_s  
Epoch 2961/5000  
103/103 [=====] - 0s 19us/step - loss: 561.3288 - acc: 0.0194 - mean\_s  
Epoch 2962/5000  
103/103 [=====] - 0s 19us/step - loss: 561.0513 - acc: 0.0194 - mean\_s  
Epoch 2963/5000  
103/103 [=====] - 0s 29us/step - loss: 560.7421 - acc: 0.0194 - mean\_s  
Epoch 2964/5000  
103/103 [=====] - 0s 19us/step - loss: 560.4533 - acc: 0.0291 - mean\_s  
Epoch 2965/5000  
103/103 [=====] - 0s 19us/step - loss: 560.1843 - acc: 0.0291 - mean\_s  
Epoch 2966/5000  
103/103 [=====] - 0s 29us/step - loss: 559.9064 - acc: 0.0291 - mean\_s  
Epoch 2967/5000  
103/103 [=====] - 0s 29us/step - loss: 559.6436 - acc: 0.0291 - mean\_s  
Epoch 2968/5000  
103/103 [=====] - 0s 29us/step - loss: 559.3784 - acc: 0.0291 - mean\_s  
Epoch 2969/5000  
103/103 [=====] - 0s 29us/step - loss: 559.0857 - acc: 0.0291 - mean\_s  
Epoch 2970/5000  
103/103 [=====] - 0s 19us/step - loss: 558.7982 - acc: 0.0291 - mean\_s  
Epoch 2971/5000  
103/103 [=====] - 0s 19us/step - loss: 558.5240 - acc: 0.0291 - mean\_s  
Epoch 2972/5000  
103/103 [=====] - 0s 29us/step - loss: 558.2560 - acc: 0.0291 - mean\_s  
Epoch 2973/5000  
103/103 [=====] - 0s 19us/step - loss: 557.9845 - acc: 0.0291 - mean\_s  
Epoch 2974/5000  
103/103 [=====] - 0s 29us/step - loss: 557.6926 - acc: 0.0291 - mean\_s  
Epoch 2975/5000  
103/103 [=====] - 0s 19us/step - loss: 557.4012 - acc: 0.0291 - mean\_s  
Epoch 2976/5000  
103/103 [=====] - 0s 19us/step - loss: 557.1366 - acc: 0.0291 - mean\_s  
Epoch 2977/5000  
103/103 [=====] - 0s 29us/step - loss: 556.8503 - acc: 0.0291 - mean\_s

Epoch 2978/5000  
103/103 [=====] - 0s 19us/step - loss: 556.5854 - acc: 0.0291 - mean\_s  
Epoch 2979/5000  
103/103 [=====] - 0s 19us/step - loss: 556.2909 - acc: 0.0291 - mean\_s  
Epoch 2980/5000  
103/103 [=====] - 0s 19us/step - loss: 556.0338 - acc: 0.0291 - mean\_s  
Epoch 2981/5000  
103/103 [=====] - 0s 19us/step - loss: 555.7649 - acc: 0.0291 - mean\_s  
Epoch 2982/5000  
103/103 [=====] - 0s 29us/step - loss: 555.5068 - acc: 0.0291 - mean\_s  
Epoch 2983/5000  
103/103 [=====] - 0s 19us/step - loss: 555.2502 - acc: 0.0291 - mean\_s  
Epoch 2984/5000  
103/103 [=====] - 0s 19us/step - loss: 554.9837 - acc: 0.0291 - mean\_s  
Epoch 2985/5000  
103/103 [=====] - 0s 19us/step - loss: 554.6927 - acc: 0.0291 - mean\_s  
Epoch 2986/5000  
103/103 [=====] - 0s 19us/step - loss: 554.3941 - acc: 0.0291 - mean\_s  
Epoch 2987/5000  
103/103 [=====] - 0s 19us/step - loss: 554.1204 - acc: 0.0291 - mean\_s  
Epoch 2988/5000  
103/103 [=====] - 0s 29us/step - loss: 553.8773 - acc: 0.0291 - mean\_s  
Epoch 2989/5000  
103/103 [=====] - 0s 29us/step - loss: 553.5671 - acc: 0.0291 - mean\_s  
Epoch 2990/5000  
103/103 [=====] - 0s 19us/step - loss: 553.2776 - acc: 0.0291 - mean\_s  
Epoch 2991/5000  
103/103 [=====] - 0s 19us/step - loss: 553.0110 - acc: 0.0291 - mean\_s  
Epoch 2992/5000  
103/103 [=====] - 0s 19us/step - loss: 552.7710 - acc: 0.0291 - mean\_s  
Epoch 2993/5000  
103/103 [=====] - 0s 19us/step - loss: 552.4897 - acc: 0.0194 - mean\_s  
Epoch 2994/5000  
103/103 [=====] - 0s 19us/step - loss: 552.2209 - acc: 0.0194 - mean\_s  
Epoch 2995/5000  
103/103 [=====] - 0s 29us/step - loss: 551.9399 - acc: 0.0194 - mean\_s  
Epoch 2996/5000  
103/103 [=====] - 0s 29us/step - loss: 551.6617 - acc: 0.0194 - mean\_s  
Epoch 2997/5000  
103/103 [=====] - 0s 19us/step - loss: 551.4058 - acc: 0.0194 - mean\_s  
Epoch 2998/5000  
103/103 [=====] - 0s 19us/step - loss: 551.1715 - acc: 0.0194 - mean\_s  
Epoch 2999/5000  
103/103 [=====] - 0s 19us/step - loss: 550.8596 - acc: 0.0291 - mean\_s  
Epoch 3000/5000  
103/103 [=====] - 0s 29us/step - loss: 550.5878 - acc: 0.0194 - mean\_s  
Epoch 3001/5000  
103/103 [=====] - 0s 29us/step - loss: 550.3369 - acc: 0.0291 - mean\_s

Epoch 3002/5000  
103/103 [=====] - 0s 19us/step - loss: 550.0773 - acc: 0.0291 - mean\_s  
Epoch 3003/5000  
103/103 [=====] - 0s 19us/step - loss: 549.8045 - acc: 0.0291 - mean\_s  
Epoch 3004/5000  
103/103 [=====] - 0s 29us/step - loss: 549.5392 - acc: 0.0291 - mean\_s  
Epoch 3005/5000  
103/103 [=====] - 0s 29us/step - loss: 549.2925 - acc: 0.0291 - mean\_s  
Epoch 3006/5000  
103/103 [=====] - 0s 29us/step - loss: 549.0178 - acc: 0.0291 - mean\_s  
Epoch 3007/5000  
103/103 [=====] - 0s 19us/step - loss: 548.7789 - acc: 0.0291 - mean\_s  
Epoch 3008/5000  
103/103 [=====] - 0s 29us/step - loss: 548.5222 - acc: 0.0291 - mean\_s  
Epoch 3009/5000  
103/103 [=====] - 0s 19us/step - loss: 548.1968 - acc: 0.0291 - mean\_s  
Epoch 3010/5000  
103/103 [=====] - 0s 29us/step - loss: 547.9949 - acc: 0.0291 - mean\_s  
Epoch 3011/5000  
103/103 [=====] - 0s 19us/step - loss: 547.7310 - acc: 0.0291 - mean\_s  
Epoch 3012/5000  
103/103 [=====] - 0s 19us/step - loss: 547.5194 - acc: 0.0291 - mean\_s  
Epoch 3013/5000  
103/103 [=====] - 0s 29us/step - loss: 547.2254 - acc: 0.0291 - mean\_s  
Epoch 3014/5000  
103/103 [=====] - 0s 29us/step - loss: 546.9517 - acc: 0.0291 - mean\_s  
Epoch 3015/5000  
103/103 [=====] - 0s 19us/step - loss: 546.7007 - acc: 0.0291 - mean\_s  
Epoch 3016/5000  
103/103 [=====] - 0s 19us/step - loss: 546.4479 - acc: 0.0291 - mean\_s  
Epoch 3017/5000  
103/103 [=====] - 0s 29us/step - loss: 546.1412 - acc: 0.0291 - mean\_s  
Epoch 3018/5000  
103/103 [=====] - 0s 19us/step - loss: 545.9000 - acc: 0.0194 - mean\_s  
Epoch 3019/5000  
103/103 [=====] - 0s 29us/step - loss: 545.6618 - acc: 0.0194 - mean\_s  
Epoch 3020/5000  
103/103 [=====] - 0s 19us/step - loss: 545.4003 - acc: 0.0291 - mean\_s  
Epoch 3021/5000  
103/103 [=====] - 0s 19us/step - loss: 545.1471 - acc: 0.0291 - mean\_s  
Epoch 3022/5000  
103/103 [=====] - 0s 19us/step - loss: 544.8702 - acc: 0.0291 - mean\_s  
Epoch 3023/5000  
103/103 [=====] - 0s 29us/step - loss: 544.6370 - acc: 0.0291 - mean\_s  
Epoch 3024/5000  
103/103 [=====] - 0s 19us/step - loss: 544.3751 - acc: 0.0291 - mean\_s  
Epoch 3025/5000  
103/103 [=====] - 0s 19us/step - loss: 544.0796 - acc: 0.0291 - mean\_s

Epoch 3026/5000  
103/103 [=====] - 0s 19us/step - loss: 543.8249 - acc: 0.0291 - mean\_s  
Epoch 3027/5000  
103/103 [=====] - 0s 29us/step - loss: 543.5849 - acc: 0.0291 - mean\_s  
Epoch 3028/5000  
103/103 [=====] - 0s 29us/step - loss: 543.3139 - acc: 0.0291 - mean\_s  
Epoch 3029/5000  
103/103 [=====] - 0s 29us/step - loss: 543.1008 - acc: 0.0291 - mean\_s  
Epoch 3030/5000  
103/103 [=====] - 0s 19us/step - loss: 542.8288 - acc: 0.0291 - mean\_s  
Epoch 3031/5000  
103/103 [=====] - 0s 29us/step - loss: 542.5911 - acc: 0.0291 - mean\_s  
Epoch 3032/5000  
103/103 [=====] - 0s 29us/step - loss: 542.3134 - acc: 0.0291 - mean\_s  
Epoch 3033/5000  
103/103 [=====] - 0s 29us/step - loss: 542.0855 - acc: 0.0291 - mean\_s  
Epoch 3034/5000  
103/103 [=====] - 0s 19us/step - loss: 541.8367 - acc: 0.0291 - mean\_s  
Epoch 3035/5000  
103/103 [=====] - 0s 19us/step - loss: 541.5606 - acc: 0.0291 - mean\_s  
Epoch 3036/5000  
103/103 [=====] - 0s 29us/step - loss: 541.3211 - acc: 0.0291 - mean\_s  
Epoch 3037/5000  
103/103 [=====] - 0s 29us/step - loss: 541.0969 - acc: 0.0291 - mean\_s  
Epoch 3038/5000  
103/103 [=====] - 0s 29us/step - loss: 540.8004 - acc: 0.0291 - mean\_s  
Epoch 3039/5000  
103/103 [=====] - 0s 19us/step - loss: 540.5267 - acc: 0.0291 - mean\_s  
Epoch 3040/5000  
103/103 [=====] - 0s 29us/step - loss: 540.3134 - acc: 0.0291 - mean\_s  
Epoch 3041/5000  
103/103 [=====] - 0s 29us/step - loss: 540.1059 - acc: 0.0291 - mean\_s  
Epoch 3042/5000  
103/103 [=====] - 0s 29us/step - loss: 539.8630 - acc: 0.0291 - mean\_s  
Epoch 3043/5000  
103/103 [=====] - 0s 29us/step - loss: 539.5729 - acc: 0.0291 - mean\_s  
Epoch 3044/5000  
103/103 [=====] - 0s 29us/step - loss: 539.3198 - acc: 0.0291 - mean\_s  
Epoch 3045/5000  
103/103 [=====] - 0s 29us/step - loss: 539.0752 - acc: 0.0291 - mean\_s  
Epoch 3046/5000  
103/103 [=====] - 0s 29us/step - loss: 538.8288 - acc: 0.0291 - mean\_s  
Epoch 3047/5000  
103/103 [=====] - 0s 29us/step - loss: 538.5935 - acc: 0.0291 - mean\_s  
Epoch 3048/5000  
103/103 [=====] - 0s 29us/step - loss: 538.3322 - acc: 0.0291 - mean\_s  
Epoch 3049/5000  
103/103 [=====] - 0s 29us/step - loss: 538.0920 - acc: 0.0291 - mean\_s

Epoch 3050/5000  
103/103 [=====] - 0s 29us/step - loss: 537.8496 - acc: 0.0291 - mean\_s  
Epoch 3051/5000  
103/103 [=====] - 0s 29us/step - loss: 537.6237 - acc: 0.0291 - mean\_s  
Epoch 3052/5000  
103/103 [=====] - 0s 29us/step - loss: 537.3810 - acc: 0.0291 - mean\_s  
Epoch 3053/5000  
103/103 [=====] - 0s 19us/step - loss: 537.1219 - acc: 0.0291 - mean\_s  
Epoch 3054/5000  
103/103 [=====] - 0s 29us/step - loss: 536.8784 - acc: 0.0291 - mean\_s  
Epoch 3055/5000  
103/103 [=====] - 0s 19us/step - loss: 536.6249 - acc: 0.0291 - mean\_s  
Epoch 3056/5000  
103/103 [=====] - 0s 19us/step - loss: 536.3504 - acc: 0.0291 - mean\_s  
Epoch 3057/5000  
103/103 [=====] - 0s 29us/step - loss: 536.1573 - acc: 0.0291 - mean\_s  
Epoch 3058/5000  
103/103 [=====] - 0s 29us/step - loss: 535.8776 - acc: 0.0291 - mean\_s  
Epoch 3059/5000  
103/103 [=====] - 0s 29us/step - loss: 535.6534 - acc: 0.0291 - mean\_s  
Epoch 3060/5000  
103/103 [=====] - 0s 29us/step - loss: 535.4547 - acc: 0.0291 - mean\_s  
Epoch 3061/5000  
103/103 [=====] - 0s 29us/step - loss: 535.1820 - acc: 0.0291 - mean\_s  
Epoch 3062/5000  
103/103 [=====] - 0s 29us/step - loss: 534.9318 - acc: 0.0291 - mean\_s  
Epoch 3063/5000  
103/103 [=====] - 0s 29us/step - loss: 534.6689 - acc: 0.0291 - mean\_s  
Epoch 3064/5000  
103/103 [=====] - 0s 19us/step - loss: 534.4373 - acc: 0.0291 - mean\_s  
Epoch 3065/5000  
103/103 [=====] - 0s 29us/step - loss: 534.1747 - acc: 0.0291 - mean\_s  
Epoch 3066/5000  
103/103 [=====] - 0s 29us/step - loss: 533.9282 - acc: 0.0291 - mean\_s  
Epoch 3067/5000  
103/103 [=====] - 0s 29us/step - loss: 533.7028 - acc: 0.0291 - mean\_s  
Epoch 3068/5000  
103/103 [=====] - 0s 19us/step - loss: 533.4428 - acc: 0.0291 - mean\_s  
Epoch 3069/5000  
103/103 [=====] - 0s 19us/step - loss: 533.1710 - acc: 0.0291 - mean\_s  
Epoch 3070/5000  
103/103 [=====] - 0s 19us/step - loss: 532.9548 - acc: 0.0291 - mean\_s  
Epoch 3071/5000  
103/103 [=====] - 0s 29us/step - loss: 532.7010 - acc: 0.0291 - mean\_s  
Epoch 3072/5000  
103/103 [=====] - 0s 29us/step - loss: 532.4744 - acc: 0.0291 - mean\_s  
Epoch 3073/5000  
103/103 [=====] - 0s 29us/step - loss: 532.2150 - acc: 0.0291 - mean\_s

Epoch 3074/5000  
103/103 [=====] - 0s 19us/step - loss: 531.9618 - acc: 0.0291 - mean\_s  
Epoch 3075/5000  
103/103 [=====] - 0s 29us/step - loss: 531.7085 - acc: 0.0291 - mean\_s  
Epoch 3076/5000  
103/103 [=====] - 0s 19us/step - loss: 531.4622 - acc: 0.0291 - mean\_s  
Epoch 3077/5000  
103/103 [=====] - 0s 29us/step - loss: 531.2188 - acc: 0.0291 - mean\_s  
Epoch 3078/5000  
103/103 [=====] - 0s 19us/step - loss: 530.9778 - acc: 0.0291 - mean\_s  
Epoch 3079/5000  
103/103 [=====] - 0s 19us/step - loss: 530.7443 - acc: 0.0291 - mean\_s  
Epoch 3080/5000  
103/103 [=====] - 0s 29us/step - loss: 530.4830 - acc: 0.0291 - mean\_s  
Epoch 3081/5000  
103/103 [=====] - 0s 29us/step - loss: 530.2330 - acc: 0.0291 - mean\_s  
Epoch 3082/5000  
103/103 [=====] - 0s 29us/step - loss: 530.0547 - acc: 0.0291 - mean\_s  
Epoch 3083/5000  
103/103 [=====] - 0s 19us/step - loss: 529.7983 - acc: 0.0291 - mean\_s  
Epoch 3084/5000  
103/103 [=====] - 0s 29us/step - loss: 529.5658 - acc: 0.0291 - mean\_s  
Epoch 3085/5000  
103/103 [=====] - 0s 29us/step - loss: 529.3310 - acc: 0.0291 - mean\_s  
Epoch 3086/5000  
103/103 [=====] - 0s 29us/step - loss: 529.0921 - acc: 0.0291 - mean\_s  
Epoch 3087/5000  
103/103 [=====] - 0s 29us/step - loss: 528.8545 - acc: 0.0291 - mean\_s  
Epoch 3088/5000  
103/103 [=====] - 0s 19us/step - loss: 528.5831 - acc: 0.0291 - mean\_s  
Epoch 3089/5000  
103/103 [=====] - 0s 19us/step - loss: 528.3368 - acc: 0.0291 - mean\_s  
Epoch 3090/5000  
103/103 [=====] - 0s 29us/step - loss: 528.1291 - acc: 0.0291 - mean\_s  
Epoch 3091/5000  
103/103 [=====] - 0s 29us/step - loss: 527.8481 - acc: 0.0291 - mean\_s  
Epoch 3092/5000  
103/103 [=====] - 0s 19us/step - loss: 527.6374 - acc: 0.0291 - mean\_s  
Epoch 3093/5000  
103/103 [=====] - 0s 19us/step - loss: 527.4006 - acc: 0.0291 - mean\_s  
Epoch 3094/5000  
103/103 [=====] - 0s 29us/step - loss: 527.1549 - acc: 0.0291 - mean\_s  
Epoch 3095/5000  
103/103 [=====] - 0s 29us/step - loss: 526.8962 - acc: 0.0291 - mean\_s  
Epoch 3096/5000  
103/103 [=====] - 0s 19us/step - loss: 526.6374 - acc: 0.0291 - mean\_s  
Epoch 3097/5000  
103/103 [=====] - 0s 29us/step - loss: 526.4686 - acc: 0.0291 - mean\_s

Epoch 3098/5000  
103/103 [=====] - 0s 29us/step - loss: 526.1768 - acc: 0.0291 - mean\_s  
Epoch 3099/5000  
103/103 [=====] - 0s 29us/step - loss: 525.9446 - acc: 0.0291 - mean\_s  
Epoch 3100/5000  
103/103 [=====] - 0s 29us/step - loss: 525.7278 - acc: 0.0291 - mean\_s  
Epoch 3101/5000  
103/103 [=====] - 0s 29us/step - loss: 525.4912 - acc: 0.0291 - mean\_s  
Epoch 3102/5000  
103/103 [=====] - 0s 29us/step - loss: 525.2717 - acc: 0.0291 - mean\_s  
Epoch 3103/5000  
103/103 [=====] - 0s 19us/step - loss: 525.0255 - acc: 0.0291 - mean\_s  
Epoch 3104/5000  
103/103 [=====] - 0s 29us/step - loss: 524.7574 - acc: 0.0291 - mean\_s  
Epoch 3105/5000  
103/103 [=====] - 0s 19us/step - loss: 524.5335 - acc: 0.0291 - mean\_s  
Epoch 3106/5000  
103/103 [=====] - 0s 29us/step - loss: 524.3284 - acc: 0.0291 - mean\_s  
Epoch 3107/5000  
103/103 [=====] - 0s 19us/step - loss: 524.0779 - acc: 0.0291 - mean\_s  
Epoch 3108/5000  
103/103 [=====] - 0s 19us/step - loss: 523.8863 - acc: 0.0291 - mean\_s  
Epoch 3109/5000  
103/103 [=====] - 0s 19us/step - loss: 523.6411 - acc: 0.0291 - mean\_s  
Epoch 3110/5000  
103/103 [=====] - 0s 19us/step - loss: 523.4011 - acc: 0.0291 - mean\_s  
Epoch 3111/5000  
103/103 [=====] - 0s 29us/step - loss: 523.2004 - acc: 0.0291 - mean\_s  
Epoch 3112/5000  
103/103 [=====] - 0s 19us/step - loss: 522.9229 - acc: 0.0291 - mean\_s  
Epoch 3113/5000  
103/103 [=====] - 0s 19us/step - loss: 522.6970 - acc: 0.0291 - mean\_s  
Epoch 3114/5000  
103/103 [=====] - 0s 19us/step - loss: 522.4669 - acc: 0.0291 - mean\_s  
Epoch 3115/5000  
103/103 [=====] - 0s 19us/step - loss: 522.2355 - acc: 0.0291 - mean\_s  
Epoch 3116/5000  
103/103 [=====] - 0s 19us/step - loss: 522.0247 - acc: 0.0291 - mean\_s  
Epoch 3117/5000  
103/103 [=====] - 0s 19us/step - loss: 521.7927 - acc: 0.0291 - mean\_s  
Epoch 3118/5000  
103/103 [=====] - 0s 29us/step - loss: 521.5477 - acc: 0.0388 - mean\_s  
Epoch 3119/5000  
103/103 [=====] - 0s 29us/step - loss: 521.3215 - acc: 0.0291 - mean\_s  
Epoch 3120/5000  
103/103 [=====] - 0s 19us/step - loss: 521.0787 - acc: 0.0388 - mean\_s  
Epoch 3121/5000  
103/103 [=====] - 0s 19us/step - loss: 520.8425 - acc: 0.0388 - mean\_s



Epoch 3122/5000  
103/103 [=====] - 0s 19us/step - loss: 520.6609 - acc: 0.0388 - mean\_s  
Epoch 3123/5000  
103/103 [=====] - 0s 29us/step - loss: 520.3813 - acc: 0.0388 - mean\_s  
Epoch 3124/5000  
103/103 [=====] - 0s 19us/step - loss: 520.1724 - acc: 0.0388 - mean\_s  
Epoch 3125/5000  
103/103 [=====] - 0s 19us/step - loss: 519.9588 - acc: 0.0291 - mean\_s  
Epoch 3126/5000  
103/103 [=====] - 0s 29us/step - loss: 519.7368 - acc: 0.0291 - mean\_s  
Epoch 3127/5000  
103/103 [=====] - 0s 19us/step - loss: 519.5457 - acc: 0.0388 - mean\_s  
Epoch 3128/5000  
103/103 [=====] - 0s 19us/step - loss: 519.2946 - acc: 0.0388 - mean\_s  
Epoch 3129/5000  
103/103 [=====] - 0s 19us/step - loss: 519.0505 - acc: 0.0291 - mean\_s  
Epoch 3130/5000  
103/103 [=====] - 0s 29us/step - loss: 518.8590 - acc: 0.0388 - mean\_s  
Epoch 3131/5000  
103/103 [=====] - 0s 29us/step - loss: 518.6422 - acc: 0.0388 - mean\_s  
Epoch 3132/5000  
103/103 [=====] - 0s 19us/step - loss: 518.4219 - acc: 0.0485 - mean\_s  
Epoch 3133/5000  
103/103 [=====] - 0s 19us/step - loss: 518.2039 - acc: 0.0388 - mean\_s  
Epoch 3134/5000  
103/103 [=====] - 0s 29us/step - loss: 518.0143 - acc: 0.0388 - mean\_s  
Epoch 3135/5000  
103/103 [=====] - 0s 29us/step - loss: 517.7803 - acc: 0.0388 - mean\_s  
Epoch 3136/5000  
103/103 [=====] - 0s 29us/step - loss: 517.5450 - acc: 0.0388 - mean\_s  
Epoch 3137/5000  
103/103 [=====] - 0s 29us/step - loss: 517.3531 - acc: 0.0388 - mean\_s  
Epoch 3138/5000  
103/103 [=====] - 0s 19us/step - loss: 517.1188 - acc: 0.0485 - mean\_s  
Epoch 3139/5000  
103/103 [=====] - 0s 19us/step - loss: 516.8842 - acc: 0.0485 - mean\_s  
Epoch 3140/5000  
103/103 [=====] - 0s 19us/step - loss: 516.6652 - acc: 0.0388 - mean\_s  
Epoch 3141/5000  
103/103 [=====] - 0s 19us/step - loss: 516.4759 - acc: 0.0388 - mean\_s  
Epoch 3142/5000  
103/103 [=====] - 0s 29us/step - loss: 516.2579 - acc: 0.0388 - mean\_s  
Epoch 3143/5000  
103/103 [=====] - 0s 48us/step - loss: 516.0162 - acc: 0.0388 - mean\_s  
Epoch 3144/5000  
103/103 [=====] - 0s 29us/step - loss: 515.7772 - acc: 0.0388 - mean\_s  
Epoch 3145/5000  
103/103 [=====] - 0s 39us/step - loss: 515.5649 - acc: 0.0388 - mean\_s

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Epoch 3146/5000
103/103 [=====] - 0s 19us/step - loss: 515.3854 - acc: 0.0388 - mean_s
Epoch 3147/5000
103/103 [=====] - 0s 29us/step - loss: 515.1841 - acc: 0.0388 - mean_s
Epoch 3148/5000
103/103 [=====] - 0s 19us/step - loss: 514.9218 - acc: 0.0388 - mean_s
Epoch 3149/5000
103/103 [=====] - 0s 29us/step - loss: 514.7161 - acc: 0.0388 - mean_s
Epoch 3150/5000
103/103 [=====] - 0s 19us/step - loss: 514.5486 - acc: 0.0388 - mean_s
Epoch 3151/5000
103/103 [=====] - 0s 29us/step - loss: 514.3672 - acc: 0.0388 - mean_s
Epoch 3152/5000
103/103 [=====] - 0s 29us/step - loss: 514.1478 - acc: 0.0388 - mean_s
Epoch 3153/5000
103/103 [=====] - 0s 29us/step - loss: 513.9102 - acc: 0.0388 - mean_s
Epoch 3154/5000
103/103 [=====] - 0s 19us/step - loss: 513.6742 - acc: 0.0388 - mean_s
Epoch 3155/5000
103/103 [=====] - 0s 29us/step - loss: 513.4337 - acc: 0.0388 - mean_s
Epoch 3156/5000
103/103 [=====] - 0s 39us/step - loss: 513.1877 - acc: 0.0388 - mean_s
Epoch 3157/5000
103/103 [=====] - 0s 19us/step - loss: 512.9675 - acc: 0.0388 - mean_s
Epoch 3158/5000
103/103 [=====] - 0s 29us/step - loss: 512.7305 - acc: 0.0388 - mean_s
Epoch 3159/5000
103/103 [=====] - 0s 19us/step - loss: 512.4636 - acc: 0.0388 - mean_s
Epoch 3160/5000
103/103 [=====] - 0s 29us/step - loss: 512.2117 - acc: 0.0485 - mean_s
Epoch 3161/5000
103/103 [=====] - 0s 19us/step - loss: 512.0087 - acc: 0.0485 - mean_s
Epoch 3162/5000
103/103 [=====] - 0s 29us/step - loss: 511.8380 - acc: 0.0485 - mean_s
Epoch 3163/5000
103/103 [=====] - 0s 29us/step - loss: 511.5502 - acc: 0.0485 - mean_s
Epoch 3164/5000
103/103 [=====] - 0s 29us/step - loss: 511.3090 - acc: 0.0485 - mean_s
Epoch 3165/5000
103/103 [=====] - 0s 19us/step - loss: 511.0822 - acc: 0.0485 - mean_s
Epoch 3166/5000
103/103 [=====] - 0s 29us/step - loss: 510.8648 - acc: 0.0485 - mean_s
Epoch 3167/5000
103/103 [=====] - 0s 19us/step - loss: 510.6314 - acc: 0.0583 - mean_s
Epoch 3168/5000
103/103 [=====] - 0s 29us/step - loss: 510.4369 - acc: 0.0583 - mean_s
Epoch 3169/5000
103/103 [=====] - 0s 29us/step - loss: 510.1661 - acc: 0.0583 - mean_s

```

Epoch 3170/5000  
103/103 [=====] - 0s 19us/step - loss: 509.9296 - acc: 0.0583 - mean\_

Epoch 3171/5000  
103/103 [=====] - 0s 19us/step - loss: 509.7206 - acc: 0.0583 - mean\_

Epoch 3172/5000  
103/103 [=====] - 0s 29us/step - loss: 509.4945 - acc: 0.0583 - mean\_

Epoch 3173/5000  
103/103 [=====] - 0s 19us/step - loss: 509.2208 - acc: 0.0583 - mean\_

Epoch 3174/5000  
103/103 [=====] - 0s 29us/step - loss: 509.0191 - acc: 0.0583 - mean\_

Epoch 3175/5000  
103/103 [=====] - 0s 29us/step - loss: 508.7945 - acc: 0.0485 - mean\_

Epoch 3176/5000  
103/103 [=====] - 0s 29us/step - loss: 508.5419 - acc: 0.0388 - mean\_

Epoch 3177/5000  
103/103 [=====] - 0s 19us/step - loss: 508.2994 - acc: 0.0388 - mean\_

Epoch 3178/5000  
103/103 [=====] - 0s 29us/step - loss: 508.0693 - acc: 0.0388 - mean\_

Epoch 3179/5000  
103/103 [=====] - 0s 19us/step - loss: 507.8166 - acc: 0.0485 - mean\_

Epoch 3180/5000  
103/103 [=====] - 0s 19us/step - loss: 507.5709 - acc: 0.0485 - mean\_

Epoch 3181/5000  
103/103 [=====] - 0s 29us/step - loss: 507.3372 - acc: 0.0485 - mean\_

Epoch 3182/5000  
103/103 [=====] - 0s 29us/step - loss: 507.0930 - acc: 0.0388 - mean\_

Epoch 3183/5000  
103/103 [=====] - 0s 19us/step - loss: 506.8540 - acc: 0.0194 - mean\_

Epoch 3184/5000  
103/103 [=====] - 0s 29us/step - loss: 506.6708 - acc: 0.0388 - mean\_

Epoch 3185/5000  
103/103 [=====] - 0s 19us/step - loss: 506.4148 - acc: 0.0388 - mean\_

Epoch 3186/5000  
103/103 [=====] - 0s 19us/step - loss: 506.1408 - acc: 0.0388 - mean\_

Epoch 3187/5000  
103/103 [=====] - 0s 29us/step - loss: 505.9285 - acc: 0.0388 - mean\_

Epoch 3188/5000  
103/103 [=====] - 0s 19us/step - loss: 505.7117 - acc: 0.0388 - mean\_

Epoch 3189/5000  
103/103 [=====] - 0s 29us/step - loss: 505.4771 - acc: 0.0388 - mean\_

Epoch 3190/5000  
103/103 [=====] - 0s 19us/step - loss: 505.2279 - acc: 0.0388 - mean\_

Epoch 3191/5000  
103/103 [=====] - 0s 19us/step - loss: 505.0017 - acc: 0.0388 - mean\_

Epoch 3192/5000  
103/103 [=====] - 0s 19us/step - loss: 504.7810 - acc: 0.0388 - mean\_

Epoch 3193/5000  
103/103 [=====] - 0s 19us/step - loss: 504.5374 - acc: 0.0388 - mean\_

Epoch 3194/5000  
103/103 [=====] - 0s 29us/step - loss: 504.3225 - acc: 0.0388 - mean\_s  
Epoch 3195/5000  
103/103 [=====] - 0s 29us/step - loss: 504.0793 - acc: 0.0388 - mean\_s  
Epoch 3196/5000  
103/103 [=====] - 0s 19us/step - loss: 503.8281 - acc: 0.0485 - mean\_s  
Epoch 3197/5000  
103/103 [=====] - 0s 29us/step - loss: 503.5825 - acc: 0.0485 - mean\_s  
Epoch 3198/5000  
103/103 [=====] - 0s 19us/step - loss: 503.3612 - acc: 0.0485 - mean\_s  
Epoch 3199/5000  
103/103 [=====] - 0s 29us/step - loss: 503.1358 - acc: 0.0388 - mean\_s  
Epoch 3200/5000  
103/103 [=====] - 0s 29us/step - loss: 502.9095 - acc: 0.0388 - mean\_s  
Epoch 3201/5000  
103/103 [=====] - 0s 29us/step - loss: 502.6697 - acc: 0.0485 - mean\_s  
Epoch 3202/5000  
103/103 [=====] - 0s 29us/step - loss: 502.4403 - acc: 0.0485 - mean\_s  
Epoch 3203/5000  
103/103 [=====] - 0s 29us/step - loss: 502.2278 - acc: 0.0485 - mean\_s  
Epoch 3204/5000  
103/103 [=====] - 0s 19us/step - loss: 502.0021 - acc: 0.0485 - mean\_s  
Epoch 3205/5000  
103/103 [=====] - 0s 19us/step - loss: 501.7508 - acc: 0.0485 - mean\_s  
Epoch 3206/5000  
103/103 [=====] - 0s 29us/step - loss: 501.5505 - acc: 0.0485 - mean\_s  
Epoch 3207/5000  
103/103 [=====] - 0s 19us/step - loss: 501.3001 - acc: 0.0388 - mean\_s  
Epoch 3208/5000  
103/103 [=====] - 0s 29us/step - loss: 501.0966 - acc: 0.0388 - mean\_s  
Epoch 3209/5000  
103/103 [=====] - 0s 29us/step - loss: 500.8608 - acc: 0.0291 - mean\_s  
Epoch 3210/5000  
103/103 [=====] - 0s 19us/step - loss: 500.6211 - acc: 0.0388 - mean\_s  
Epoch 3211/5000  
103/103 [=====] - 0s 19us/step - loss: 500.3789 - acc: 0.0388 - mean\_s  
Epoch 3212/5000  
103/103 [=====] - 0s 29us/step - loss: 500.1568 - acc: 0.0485 - mean\_s  
Epoch 3213/5000  
103/103 [=====] - 0s 29us/step - loss: 499.9083 - acc: 0.0485 - mean\_s  
Epoch 3214/5000  
103/103 [=====] - 0s 29us/step - loss: 499.6943 - acc: 0.0485 - mean\_s  
Epoch 3215/5000  
103/103 [=====] - 0s 19us/step - loss: 499.4749 - acc: 0.0485 - mean\_s  
Epoch 3216/5000  
103/103 [=====] - 0s 29us/step - loss: 499.2142 - acc: 0.0388 - mean\_s  
Epoch 3217/5000  
103/103 [=====] - 0s 19us/step - loss: 498.9913 - acc: 0.0388 - mean\_s

Epoch 3218/5000  
103/103 [=====] - 0s 19us/step - loss: 498.7838 - acc: 0.0388 - mean\_s  
Epoch 3219/5000  
103/103 [=====] - 0s 29us/step - loss: 498.5438 - acc: 0.0388 - mean\_s  
Epoch 3220/5000  
103/103 [=====] - 0s 29us/step - loss: 498.3036 - acc: 0.0388 - mean\_s  
Epoch 3221/5000  
103/103 [=====] - 0s 29us/step - loss: 498.0663 - acc: 0.0388 - mean\_s  
Epoch 3222/5000  
103/103 [=====] - 0s 29us/step - loss: 497.8729 - acc: 0.0388 - mean\_s  
Epoch 3223/5000  
103/103 [=====] - 0s 19us/step - loss: 497.6730 - acc: 0.0485 - mean\_s  
Epoch 3224/5000  
103/103 [=====] - 0s 19us/step - loss: 497.4088 - acc: 0.0485 - mean\_s  
Epoch 3225/5000  
103/103 [=====] - 0s 19us/step - loss: 497.1954 - acc: 0.0485 - mean\_s  
Epoch 3226/5000  
103/103 [=====] - 0s 29us/step - loss: 496.9651 - acc: 0.0485 - mean\_s  
Epoch 3227/5000  
103/103 [=====] - 0s 19us/step - loss: 496.7342 - acc: 0.0485 - mean\_s  
Epoch 3228/5000  
103/103 [=====] - 0s 19us/step - loss: 496.4951 - acc: 0.0485 - mean\_s  
Epoch 3229/5000  
103/103 [=====] - 0s 19us/step - loss: 496.2454 - acc: 0.0485 - mean\_s  
Epoch 3230/5000  
103/103 [=====] - 0s 19us/step - loss: 496.0065 - acc: 0.0485 - mean\_s  
Epoch 3231/5000  
103/103 [=====] - 0s 19us/step - loss: 495.8213 - acc: 0.0485 - mean\_s  
Epoch 3232/5000  
103/103 [=====] - 0s 29us/step - loss: 495.6059 - acc: 0.0485 - mean\_s  
Epoch 3233/5000  
103/103 [=====] - 0s 29us/step - loss: 495.3471 - acc: 0.0485 - mean\_s  
Epoch 3234/5000  
103/103 [=====] - 0s 19us/step - loss: 495.0923 - acc: 0.0485 - mean\_s  
Epoch 3235/5000  
103/103 [=====] - 0s 29us/step - loss: 494.8452 - acc: 0.0485 - mean\_s  
Epoch 3236/5000  
103/103 [=====] - 0s 19us/step - loss: 494.6075 - acc: 0.0485 - mean\_s  
Epoch 3237/5000  
103/103 [=====] - 0s 29us/step - loss: 494.3923 - acc: 0.0485 - mean\_s  
Epoch 3238/5000  
103/103 [=====] - 0s 29us/step - loss: 494.1706 - acc: 0.0485 - mean\_s  
Epoch 3239/5000  
103/103 [=====] - 0s 19us/step - loss: 493.9560 - acc: 0.0485 - mean\_s  
Epoch 3240/5000  
103/103 [=====] - 0s 19us/step - loss: 493.7158 - acc: 0.0388 - mean\_s  
Epoch 3241/5000  
103/103 [=====] - 0s 19us/step - loss: 493.4745 - acc: 0.0388 - mean\_s

Epoch 3242/5000  
103/103 [=====] - 0s 29us/step - loss: 493.2529 - acc: 0.0388 - mean\_

Epoch 3243/5000  
103/103 [=====] - 0s 19us/step - loss: 493.0078 - acc: 0.0388 - mean\_

Epoch 3244/5000  
103/103 [=====] - 0s 19us/step - loss: 492.7776 - acc: 0.0388 - mean\_

Epoch 3245/5000  
103/103 [=====] - 0s 29us/step - loss: 492.5513 - acc: 0.0485 - mean\_

Epoch 3246/5000  
103/103 [=====] - 0s 19us/step - loss: 492.3326 - acc: 0.0485 - mean\_

Epoch 3247/5000  
103/103 [=====] - 0s 29us/step - loss: 492.0570 - acc: 0.0485 - mean\_

Epoch 3248/5000  
103/103 [=====] - 0s 29us/step - loss: 491.8376 - acc: 0.0485 - mean\_

Epoch 3249/5000  
103/103 [=====] - 0s 19us/step - loss: 491.6253 - acc: 0.0388 - mean\_

Epoch 3250/5000  
103/103 [=====] - 0s 19us/step - loss: 491.3827 - acc: 0.0388 - mean\_

Epoch 3251/5000  
103/103 [=====] - 0s 29us/step - loss: 491.1183 - acc: 0.0388 - mean\_

Epoch 3252/5000  
103/103 [=====] - 0s 29us/step - loss: 490.8969 - acc: 0.0388 - mean\_

Epoch 3253/5000  
103/103 [=====] - 0s 29us/step - loss: 490.6609 - acc: 0.0388 - mean\_

Epoch 3254/5000  
103/103 [=====] - 0s 29us/step - loss: 490.4301 - acc: 0.0388 - mean\_

Epoch 3255/5000  
103/103 [=====] - 0s 29us/step - loss: 490.1581 - acc: 0.0388 - mean\_

Epoch 3256/5000  
103/103 [=====] - 0s 29us/step - loss: 489.9644 - acc: 0.0388 - mean\_

Epoch 3257/5000  
103/103 [=====] - 0s 19us/step - loss: 489.7140 - acc: 0.0485 - mean\_

Epoch 3258/5000  
103/103 [=====] - 0s 29us/step - loss: 489.4762 - acc: 0.0485 - mean\_

Epoch 3259/5000  
103/103 [=====] - 0s 19us/step - loss: 489.2852 - acc: 0.0485 - mean\_

Epoch 3260/5000  
103/103 [=====] - 0s 29us/step - loss: 489.0348 - acc: 0.0485 - mean\_

Epoch 3261/5000  
103/103 [=====] - 0s 19us/step - loss: 488.7818 - acc: 0.0485 - mean\_

Epoch 3262/5000  
103/103 [=====] - 0s 29us/step - loss: 488.5804 - acc: 0.0485 - mean\_

Epoch 3263/5000  
103/103 [=====] - 0s 29us/step - loss: 488.3214 - acc: 0.0388 - mean\_

Epoch 3264/5000  
103/103 [=====] - 0s 29us/step - loss: 488.0732 - acc: 0.0388 - mean\_

Epoch 3265/5000  
103/103 [=====] - 0s 29us/step - loss: 487.8722 - acc: 0.0388 - mean\_

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Epoch 3266/5000
103/103 [=====] - 0s 29us/step - loss: 487.6353 - acc: 0.0388 - mean_s
Epoch 3267/5000
103/103 [=====] - 0s 19us/step - loss: 487.4135 - acc: 0.0388 - mean_s
Epoch 3268/5000
103/103 [=====] - 0s 29us/step - loss: 487.1316 - acc: 0.0388 - mean_s
Epoch 3269/5000
103/103 [=====] - 0s 29us/step - loss: 486.9003 - acc: 0.0388 - mean_s
Epoch 3270/5000
103/103 [=====] - 0s 19us/step - loss: 486.6775 - acc: 0.0388 - mean_s
Epoch 3271/5000
103/103 [=====] - 0s 19us/step - loss: 486.4320 - acc: 0.0388 - mean_s
Epoch 3272/5000
103/103 [=====] - 0s 19us/step - loss: 486.2157 - acc: 0.0388 - mean_s
Epoch 3273/5000
103/103 [=====] - 0s 29us/step - loss: 485.9770 - acc: 0.0388 - mean_s
Epoch 3274/5000
103/103 [=====] - 0s 19us/step - loss: 485.7290 - acc: 0.0388 - mean_s
Epoch 3275/5000
103/103 [=====] - 0s 29us/step - loss: 485.4881 - acc: 0.0388 - mean_s
Epoch 3276/5000
103/103 [=====] - 0s 19us/step - loss: 485.2893 - acc: 0.0388 - mean_s
Epoch 3277/5000
103/103 [=====] - 0s 29us/step - loss: 485.0761 - acc: 0.0388 - mean_s
Epoch 3278/5000
103/103 [=====] - 0s 29us/step - loss: 484.9022 - acc: 0.0388 - mean_s
Epoch 3279/5000
103/103 [=====] - 0s 29us/step - loss: 484.6892 - acc: 0.0388 - mean_s
Epoch 3280/5000
103/103 [=====] - 0s 29us/step - loss: 484.5170 - acc: 0.0388 - mean_s
Epoch 3281/5000
103/103 [=====] - 0s 29us/step - loss: 484.3121 - acc: 0.0388 - mean_s
Epoch 3282/5000
103/103 [=====] - 0s 29us/step - loss: 484.1067 - acc: 0.0388 - mean_s
Epoch 3283/5000
103/103 [=====] - 0s 29us/step - loss: 483.8940 - acc: 0.0485 - mean_s
Epoch 3284/5000
103/103 [=====] - 0s 29us/step - loss: 483.6832 - acc: 0.0485 - mean_s
Epoch 3285/5000
103/103 [=====] - 0s 29us/step - loss: 483.4711 - acc: 0.0485 - mean_s
Epoch 3286/5000
103/103 [=====] - 0s 29us/step - loss: 483.2820 - acc: 0.0485 - mean_s
Epoch 3287/5000
103/103 [=====] - 0s 29us/step - loss: 483.0825 - acc: 0.0485 - mean_s
Epoch 3288/5000
103/103 [=====] - 0s 19us/step - loss: 482.8626 - acc: 0.0583 - mean_s
Epoch 3289/5000
103/103 [=====] - 0s 29us/step - loss: 482.6836 - acc: 0.0485 - mean_s

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Epoch 3290/5000  
103/103 [=====] - 0s 29us/step - loss: 482.4959 - acc: 0.0485 - mean\_s  
Epoch 3291/5000  
103/103 [=====] - 0s 19us/step - loss: 482.3003 - acc: 0.0485 - mean\_s  
Epoch 3292/5000  
103/103 [=====] - 0s 19us/step - loss: 482.0916 - acc: 0.0485 - mean\_s  
Epoch 3293/5000  
103/103 [=====] - 0s 29us/step - loss: 481.8759 - acc: 0.0485 - mean\_s  
Epoch 3294/5000  
103/103 [=====] - 0s 29us/step - loss: 481.6281 - acc: 0.0485 - mean\_s  
Epoch 3295/5000  
103/103 [=====] - 0s 19us/step - loss: 481.4256 - acc: 0.0388 - mean\_s  
Epoch 3296/5000  
103/103 [=====] - 0s 29us/step - loss: 481.2269 - acc: 0.0485 - mean\_s  
Epoch 3297/5000  
103/103 [=====] - 0s 19us/step - loss: 481.0281 - acc: 0.0485 - mean\_s  
Epoch 3298/5000  
103/103 [=====] - 0s 19us/step - loss: 480.8151 - acc: 0.0485 - mean\_s  
Epoch 3299/5000  
103/103 [=====] - 0s 19us/step - loss: 480.6097 - acc: 0.0485 - mean\_s  
Epoch 3300/5000  
103/103 [=====] - 0s 29us/step - loss: 480.3972 - acc: 0.0485 - mean\_s  
Epoch 3301/5000  
103/103 [=====] - 0s 19us/step - loss: 480.1890 - acc: 0.0485 - mean\_s  
Epoch 3302/5000  
103/103 [=====] - 0s 19us/step - loss: 480.0580 - acc: 0.0583 - mean\_s  
Epoch 3303/5000  
103/103 [=====] - 0s 29us/step - loss: 479.7596 - acc: 0.0583 - mean\_s  
Epoch 3304/5000  
103/103 [=====] - 0s 29us/step - loss: 479.5945 - acc: 0.0583 - mean\_s  
Epoch 3305/5000  
103/103 [=====] - 0s 29us/step - loss: 479.3908 - acc: 0.0583 - mean\_s  
Epoch 3306/5000  
103/103 [=====] - 0s 29us/step - loss: 479.1606 - acc: 0.0583 - mean\_s  
Epoch 3307/5000  
103/103 [=====] - 0s 19us/step - loss: 478.9340 - acc: 0.0583 - mean\_s  
Epoch 3308/5000  
103/103 [=====] - 0s 19us/step - loss: 478.7363 - acc: 0.0583 - mean\_s  
Epoch 3309/5000  
103/103 [=====] - 0s 29us/step - loss: 478.5447 - acc: 0.0583 - mean\_s  
Epoch 3310/5000  
103/103 [=====] - 0s 19us/step - loss: 478.3319 - acc: 0.0485 - mean\_s  
Epoch 3311/5000  
103/103 [=====] - 0s 19us/step - loss: 478.1477 - acc: 0.0485 - mean\_s  
Epoch 3312/5000  
103/103 [=====] - 0s 29us/step - loss: 477.9408 - acc: 0.0485 - mean\_s  
Epoch 3313/5000  
103/103 [=====] - 0s 19us/step - loss: 477.7522 - acc: 0.0388 - mean\_s



Epoch 3314/5000  
103/103 [=====] - 0s 29us/step - loss: 477.5403 - acc: 0.0388 - mean\_s  
Epoch 3315/5000  
103/103 [=====] - 0s 19us/step - loss: 477.3253 - acc: 0.0388 - mean\_s  
Epoch 3316/5000  
103/103 [=====] - 0s 19us/step - loss: 477.1249 - acc: 0.0388 - mean\_s  
Epoch 3317/5000  
103/103 [=====] - 0s 19us/step - loss: 476.9023 - acc: 0.0388 - mean\_s  
Epoch 3318/5000  
103/103 [=====] - 0s 19us/step - loss: 476.7004 - acc: 0.0485 - mean\_s  
Epoch 3319/5000  
103/103 [=====] - 0s 19us/step - loss: 476.5093 - acc: 0.0485 - mean\_s  
Epoch 3320/5000  
103/103 [=====] - 0s 19us/step - loss: 476.2929 - acc: 0.0485 - mean\_s  
Epoch 3321/5000  
103/103 [=====] - 0s 29us/step - loss: 476.0765 - acc: 0.0583 - mean\_s  
Epoch 3322/5000  
103/103 [=====] - 0s 29us/step - loss: 475.9160 - acc: 0.0583 - mean\_s  
Epoch 3323/5000  
103/103 [=====] - 0s 29us/step - loss: 475.6514 - acc: 0.0583 - mean\_s  
Epoch 3324/5000  
103/103 [=====] - 0s 19us/step - loss: 475.4523 - acc: 0.0583 - mean\_s  
Epoch 3325/5000  
103/103 [=====] - 0s 19us/step - loss: 475.2617 - acc: 0.0485 - mean\_s  
Epoch 3326/5000  
103/103 [=====] - 0s 19us/step - loss: 475.0599 - acc: 0.0388 - mean\_s  
Epoch 3327/5000  
103/103 [=====] - 0s 19us/step - loss: 474.8417 - acc: 0.0388 - mean\_s  
Epoch 3328/5000  
103/103 [=====] - 0s 19us/step - loss: 474.6586 - acc: 0.0388 - mean\_s  
Epoch 3329/5000  
103/103 [=====] - 0s 19us/step - loss: 474.4736 - acc: 0.0388 - mean\_s  
Epoch 3330/5000  
103/103 [=====] - 0s 29us/step - loss: 474.2695 - acc: 0.0583 - mean\_s  
Epoch 3331/5000  
103/103 [=====] - 0s 29us/step - loss: 474.0630 - acc: 0.0485 - mean\_s  
Epoch 3332/5000  
103/103 [=====] - 0s 19us/step - loss: 473.8578 - acc: 0.0485 - mean\_s  
Epoch 3333/5000  
103/103 [=====] - 0s 19us/step - loss: 473.6510 - acc: 0.0485 - mean\_s  
Epoch 3334/5000  
103/103 [=====] - 0s 29us/step - loss: 473.4725 - acc: 0.0485 - mean\_s  
Epoch 3335/5000  
103/103 [=====] - 0s 19us/step - loss: 473.2409 - acc: 0.0485 - mean\_s  
Epoch 3336/5000  
103/103 [=====] - 0s 19us/step - loss: 473.0708 - acc: 0.0485 - mean\_s  
Epoch 3337/5000  
103/103 [=====] - 0s 29us/step - loss: 472.8681 - acc: 0.0485 - mean\_s

Epoch 3338/5000  
103/103 [=====] - 0s 19us/step - loss: 472.6529 - acc: 0.0485 - mean\_s  
Epoch 3339/5000  
103/103 [=====] - 0s 29us/step - loss: 472.4344 - acc: 0.0485 - mean\_s  
Epoch 3340/5000  
103/103 [=====] - 0s 29us/step - loss: 472.2678 - acc: 0.0485 - mean\_s  
Epoch 3341/5000  
103/103 [=====] - 0s 29us/step - loss: 472.0882 - acc: 0.0485 - mean\_s  
Epoch 3342/5000  
103/103 [=====] - 0s 19us/step - loss: 471.8745 - acc: 0.0485 - mean\_s  
Epoch 3343/5000  
103/103 [=====] - 0s 29us/step - loss: 471.6625 - acc: 0.0485 - mean\_s  
Epoch 3344/5000  
103/103 [=====] - 0s 19us/step - loss: 471.4623 - acc: 0.0485 - mean\_s  
Epoch 3345/5000  
103/103 [=====] - 0s 29us/step - loss: 471.2630 - acc: 0.0388 - mean\_s  
Epoch 3346/5000  
103/103 [=====] - 0s 29us/step - loss: 471.0829 - acc: 0.0388 - mean\_s  
Epoch 3347/5000  
103/103 [=====] - 0s 19us/step - loss: 470.8814 - acc: 0.0388 - mean\_s  
Epoch 3348/5000  
103/103 [=====] - 0s 29us/step - loss: 470.6990 - acc: 0.0485 - mean\_s  
Epoch 3349/5000  
103/103 [=====] - 0s 29us/step - loss: 470.5106 - acc: 0.0485 - mean\_s  
Epoch 3350/5000  
103/103 [=====] - 0s 29us/step - loss: 470.3001 - acc: 0.0485 - mean\_s  
Epoch 3351/5000  
103/103 [=====] - 0s 29us/step - loss: 470.0745 - acc: 0.0485 - mean\_s  
Epoch 3352/5000  
103/103 [=====] - 0s 29us/step - loss: 469.8667 - acc: 0.0485 - mean\_s  
Epoch 3353/5000  
103/103 [=====] - 0s 19us/step - loss: 469.6875 - acc: 0.0485 - mean\_s  
Epoch 3354/5000  
103/103 [=====] - 0s 19us/step - loss: 469.4650 - acc: 0.0485 - mean\_s  
Epoch 3355/5000  
103/103 [=====] - 0s 29us/step - loss: 469.2710 - acc: 0.0485 - mean\_s  
Epoch 3356/5000  
103/103 [=====] - 0s 19us/step - loss: 469.0681 - acc: 0.0485 - mean\_s  
Epoch 3357/5000  
103/103 [=====] - 0s 19us/step - loss: 468.8735 - acc: 0.0485 - mean\_s  
Epoch 3358/5000  
103/103 [=====] - 0s 29us/step - loss: 468.7039 - acc: 0.0485 - mean\_s  
Epoch 3359/5000  
103/103 [=====] - 0s 19us/step - loss: 468.4514 - acc: 0.0485 - mean\_s  
Epoch 3360/5000  
103/103 [=====] - 0s 19us/step - loss: 468.2604 - acc: 0.0485 - mean\_s  
Epoch 3361/5000  
103/103 [=====] - 0s 29us/step - loss: 468.0609 - acc: 0.0485 - mean\_s

Epoch 3362/5000  
103/103 [=====] - 0s 29us/step - loss: 467.8483 - acc: 0.0485 - mean\_s  
Epoch 3363/5000  
103/103 [=====] - 0s 29us/step - loss: 467.6497 - acc: 0.0583 - mean\_s  
Epoch 3364/5000  
103/103 [=====] - 0s 19us/step - loss: 467.4483 - acc: 0.0583 - mean\_s  
Epoch 3365/5000  
103/103 [=====] - 0s 29us/step - loss: 467.2759 - acc: 0.0485 - mean\_s  
Epoch 3366/5000  
103/103 [=====] - 0s 29us/step - loss: 467.1094 - acc: 0.0485 - mean\_s  
Epoch 3367/5000  
103/103 [=====] - 0s 29us/step - loss: 466.9350 - acc: 0.0485 - mean\_s  
Epoch 3368/5000  
103/103 [=====] - 0s 29us/step - loss: 466.7312 - acc: 0.0485 - mean\_s  
Epoch 3369/5000  
103/103 [=====] - 0s 19us/step - loss: 466.5389 - acc: 0.0485 - mean\_s  
Epoch 3370/5000  
103/103 [=====] - 0s 19us/step - loss: 466.3289 - acc: 0.0485 - mean\_s  
Epoch 3371/5000  
103/103 [=====] - 0s 19us/step - loss: 466.1329 - acc: 0.0485 - mean\_s  
Epoch 3372/5000  
103/103 [=====] - 0s 29us/step - loss: 465.9500 - acc: 0.0583 - mean\_s  
Epoch 3373/5000  
103/103 [=====] - 0s 29us/step - loss: 465.7450 - acc: 0.0583 - mean\_s  
Epoch 3374/5000  
103/103 [=====] - 0s 29us/step - loss: 465.5478 - acc: 0.0583 - mean\_s  
Epoch 3375/5000  
103/103 [=====] - 0s 19us/step - loss: 465.3453 - acc: 0.0583 - mean\_s  
Epoch 3376/5000  
103/103 [=====] - 0s 29us/step - loss: 465.1425 - acc: 0.0583 - mean\_s  
Epoch 3377/5000  
103/103 [=====] - 0s 29us/step - loss: 464.9448 - acc: 0.0583 - mean\_s  
Epoch 3378/5000  
103/103 [=====] - 0s 19us/step - loss: 464.8051 - acc: 0.0583 - mean\_s  
Epoch 3379/5000  
103/103 [=====] - 0s 19us/step - loss: 464.5603 - acc: 0.0583 - mean\_s  
Epoch 3380/5000  
103/103 [=====] - 0s 19us/step - loss: 464.3578 - acc: 0.0583 - mean\_s  
Epoch 3381/5000  
103/103 [=====] - 0s 19us/step - loss: 464.1948 - acc: 0.0583 - mean\_s  
Epoch 3382/5000  
103/103 [=====] - 0s 29us/step - loss: 463.9945 - acc: 0.0583 - mean\_s  
Epoch 3383/5000  
103/103 [=====] - 0s 29us/step - loss: 463.8235 - acc: 0.0583 - mean\_s  
Epoch 3384/5000  
103/103 [=====] - 0s 29us/step - loss: 463.6101 - acc: 0.0583 - mean\_s  
Epoch 3385/5000  
103/103 [=====] - 0s 29us/step - loss: 463.3935 - acc: 0.0583 - mean\_s

Epoch 3386/5000  
103/103 [=====] - 0s 29us/step - loss: 463.2037 - acc: 0.0583 - mean\_s  
Epoch 3387/5000  
103/103 [=====] - 0s 19us/step - loss: 463.0071 - acc: 0.0583 - mean\_s  
Epoch 3388/5000  
103/103 [=====] - 0s 29us/step - loss: 462.8269 - acc: 0.0583 - mean\_s  
Epoch 3389/5000  
103/103 [=====] - 0s 29us/step - loss: 462.6467 - acc: 0.0583 - mean\_s  
Epoch 3390/5000  
103/103 [=====] - 0s 29us/step - loss: 462.4934 - acc: 0.0583 - mean\_s  
Epoch 3391/5000  
103/103 [=====] - 0s 19us/step - loss: 462.2519 - acc: 0.0583 - mean\_s  
Epoch 3392/5000  
103/103 [=====] - 0s 29us/step - loss: 462.0623 - acc: 0.0583 - mean\_s  
Epoch 3393/5000  
103/103 [=====] - 0s 29us/step - loss: 461.8508 - acc: 0.0583 - mean\_s  
Epoch 3394/5000  
103/103 [=====] - 0s 29us/step - loss: 461.6771 - acc: 0.0583 - mean\_s  
Epoch 3395/5000  
103/103 [=====] - 0s 29us/step - loss: 461.4794 - acc: 0.0680 - mean\_s  
Epoch 3396/5000  
103/103 [=====] - 0s 29us/step - loss: 461.2905 - acc: 0.0680 - mean\_s  
Epoch 3397/5000  
103/103 [=====] - 0s 19us/step - loss: 461.0965 - acc: 0.0680 - mean\_s  
Epoch 3398/5000  
103/103 [=====] - 0s 19us/step - loss: 460.9150 - acc: 0.0680 - mean\_s  
Epoch 3399/5000  
103/103 [=====] - 0s 29us/step - loss: 460.7357 - acc: 0.0680 - mean\_s  
Epoch 3400/5000  
103/103 [=====] - 0s 29us/step - loss: 460.5352 - acc: 0.0680 - mean\_s  
Epoch 3401/5000  
103/103 [=====] - 0s 19us/step - loss: 460.3400 - acc: 0.0680 - mean\_s  
Epoch 3402/5000  
103/103 [=====] - 0s 19us/step - loss: 460.1331 - acc: 0.0680 - mean\_s  
Epoch 3403/5000  
103/103 [=====] - 0s 19us/step - loss: 459.9380 - acc: 0.0680 - mean\_s  
Epoch 3404/5000  
103/103 [=====] - 0s 29us/step - loss: 459.7315 - acc: 0.0680 - mean\_s  
Epoch 3405/5000  
103/103 [=====] - 0s 29us/step - loss: 459.5201 - acc: 0.0680 - mean\_s  
Epoch 3406/5000  
103/103 [=====] - 0s 29us/step - loss: 459.3400 - acc: 0.0680 - mean\_s  
Epoch 3407/5000  
103/103 [=====] - 0s 19us/step - loss: 459.1415 - acc: 0.0680 - mean\_s  
Epoch 3408/5000  
103/103 [=====] - 0s 19us/step - loss: 458.9393 - acc: 0.0680 - mean\_s  
Epoch 3409/5000  
103/103 [=====] - 0s 29us/step - loss: 458.7401 - acc: 0.0680 - mean\_s

Epoch 3410/5000  
103/103 [=====] - 0s 29us/step - loss: 458.5749 - acc: 0.0680 - mean\_s  
Epoch 3411/5000  
103/103 [=====] - 0s 19us/step - loss: 458.3425 - acc: 0.0680 - mean\_s  
Epoch 3412/5000  
103/103 [=====] - 0s 19us/step - loss: 458.1869 - acc: 0.0680 - mean\_s  
Epoch 3413/5000  
103/103 [=====] - 0s 19us/step - loss: 457.9844 - acc: 0.0680 - mean\_s  
Epoch 3414/5000  
103/103 [=====] - 0s 29us/step - loss: 457.7781 - acc: 0.0680 - mean\_s  
Epoch 3415/5000  
103/103 [=====] - 0s 19us/step - loss: 457.5825 - acc: 0.0680 - mean\_s  
Epoch 3416/5000  
103/103 [=====] - 0s 19us/step - loss: 457.4201 - acc: 0.0680 - mean\_s  
Epoch 3417/5000  
103/103 [=====] - 0s 19us/step - loss: 457.2272 - acc: 0.0680 - mean\_s  
Epoch 3418/5000  
103/103 [=====] - 0s 29us/step - loss: 457.0185 - acc: 0.0680 - mean\_s  
Epoch 3419/5000  
103/103 [=====] - 0s 19us/step - loss: 456.8461 - acc: 0.0680 - mean\_s  
Epoch 3420/5000  
103/103 [=====] - 0s 19us/step - loss: 456.6389 - acc: 0.0680 - mean\_s  
Epoch 3421/5000  
103/103 [=====] - 0s 19us/step - loss: 456.4436 - acc: 0.0680 - mean\_s  
Epoch 3422/5000  
103/103 [=====] - 0s 29us/step - loss: 456.2694 - acc: 0.0680 - mean\_s  
Epoch 3423/5000  
103/103 [=====] - 0s 19us/step - loss: 456.0360 - acc: 0.0680 - mean\_s  
Epoch 3424/5000  
103/103 [=====] - 0s 19us/step - loss: 455.8551 - acc: 0.0680 - mean\_s  
Epoch 3425/5000  
103/103 [=====] - 0s 29us/step - loss: 455.6848 - acc: 0.0680 - mean\_s  
Epoch 3426/5000  
103/103 [=====] - 0s 29us/step - loss: 455.4687 - acc: 0.0680 - mean\_s  
Epoch 3427/5000  
103/103 [=====] - 0s 29us/step - loss: 455.2806 - acc: 0.0680 - mean\_s  
Epoch 3428/5000  
103/103 [=====] - 0s 29us/step - loss: 455.0859 - acc: 0.0680 - mean\_s  
Epoch 3429/5000  
103/103 [=====] - 0s 29us/step - loss: 454.8827 - acc: 0.0680 - mean\_s  
Epoch 3430/5000  
103/103 [=====] - 0s 29us/step - loss: 454.6933 - acc: 0.0680 - mean\_s  
Epoch 3431/5000  
103/103 [=====] - 0s 19us/step - loss: 454.4966 - acc: 0.0680 - mean\_s  
Epoch 3432/5000  
103/103 [=====] - 0s 29us/step - loss: 454.3042 - acc: 0.0680 - mean\_s  
Epoch 3433/5000  
103/103 [=====] - 0s 29us/step - loss: 454.0989 - acc: 0.0680 - mean\_s

Epoch 3434/5000  
103/103 [=====] - 0s 29us/step - loss: 453.9471 - acc: 0.0680 - mean\_s  
Epoch 3435/5000  
103/103 [=====] - 0s 19us/step - loss: 453.7422 - acc: 0.0680 - mean\_s  
Epoch 3436/5000  
103/103 [=====] - 0s 29us/step - loss: 453.5453 - acc: 0.0680 - mean\_s  
Epoch 3437/5000  
103/103 [=====] - 0s 29us/step - loss: 453.3503 - acc: 0.0680 - mean\_s  
Epoch 3438/5000  
103/103 [=====] - 0s 19us/step - loss: 453.1619 - acc: 0.0680 - mean\_s  
Epoch 3439/5000  
103/103 [=====] - 0s 29us/step - loss: 452.9807 - acc: 0.0777 - mean\_s  
Epoch 3440/5000  
103/103 [=====] - 0s 19us/step - loss: 452.8127 - acc: 0.0680 - mean\_s  
Epoch 3441/5000  
103/103 [=====] - 0s 29us/step - loss: 452.5963 - acc: 0.0680 - mean\_s  
Epoch 3442/5000  
103/103 [=====] - 0s 19us/step - loss: 452.4237 - acc: 0.0680 - mean\_s  
Epoch 3443/5000  
103/103 [=====] - 0s 19us/step - loss: 452.2266 - acc: 0.0680 - mean\_s  
Epoch 3444/5000  
103/103 [=====] - 0s 19us/step - loss: 452.0410 - acc: 0.0680 - mean\_s  
Epoch 3445/5000  
103/103 [=====] - 0s 19us/step - loss: 451.8684 - acc: 0.0680 - mean\_s  
Epoch 3446/5000  
103/103 [=====] - 0s 19us/step - loss: 451.7096 - acc: 0.0680 - mean\_s  
Epoch 3447/5000  
103/103 [=====] - 0s 29us/step - loss: 451.4608 - acc: 0.0680 - mean\_s  
Epoch 3448/5000  
103/103 [=====] - 0s 29us/step - loss: 451.2899 - acc: 0.0680 - mean\_s  
Epoch 3449/5000  
103/103 [=====] - 0s 29us/step - loss: 451.1289 - acc: 0.0680 - mean\_s  
Epoch 3450/5000  
103/103 [=====] - 0s 29us/step - loss: 450.9491 - acc: 0.0680 - mean\_s  
Epoch 3451/5000  
103/103 [=====] - 0s 19us/step - loss: 450.7537 - acc: 0.0680 - mean\_s  
Epoch 3452/5000  
103/103 [=====] - 0s 29us/step - loss: 450.5451 - acc: 0.0680 - mean\_s  
Epoch 3453/5000  
103/103 [=====] - 0s 29us/step - loss: 450.3506 - acc: 0.0680 - mean\_s  
Epoch 3454/5000  
103/103 [=====] - 0s 19us/step - loss: 450.1825 - acc: 0.0680 - mean\_s  
Epoch 3455/5000  
103/103 [=====] - 0s 29us/step - loss: 450.0032 - acc: 0.0680 - mean\_s  
Epoch 3456/5000  
103/103 [=====] - 0s 29us/step - loss: 449.7910 - acc: 0.0583 - mean\_s  
Epoch 3457/5000  
103/103 [=====] - 0s 19us/step - loss: 449.5713 - acc: 0.0583 - mean\_s

Epoch 3458/5000  
103/103 [=====] - 0s 19us/step - loss: 449.3783 - acc: 0.0583 - mean\_s  
Epoch 3459/5000  
103/103 [=====] - 0s 29us/step - loss: 449.1567 - acc: 0.0583 - mean\_s  
Epoch 3460/5000  
103/103 [=====] - 0s 19us/step - loss: 448.9596 - acc: 0.0583 - mean\_s  
Epoch 3461/5000  
103/103 [=====] - 0s 29us/step - loss: 448.7789 - acc: 0.0583 - mean\_s  
Epoch 3462/5000  
103/103 [=====] - 0s 29us/step - loss: 448.5700 - acc: 0.0583 - mean\_s  
Epoch 3463/5000  
103/103 [=====] - 0s 19us/step - loss: 448.3686 - acc: 0.0583 - mean\_s  
Epoch 3464/5000  
103/103 [=====] - 0s 29us/step - loss: 448.1626 - acc: 0.0680 - mean\_s  
Epoch 3465/5000  
103/103 [=====] - 0s 29us/step - loss: 447.9595 - acc: 0.0680 - mean\_s  
Epoch 3466/5000  
103/103 [=====] - 0s 29us/step - loss: 447.7367 - acc: 0.0680 - mean\_s  
Epoch 3467/5000  
103/103 [=====] - 0s 29us/step - loss: 447.5312 - acc: 0.0680 - mean\_s  
Epoch 3468/5000  
103/103 [=====] - 0s 29us/step - loss: 447.3243 - acc: 0.0680 - mean\_s  
Epoch 3469/5000  
103/103 [=====] - 0s 29us/step - loss: 447.1142 - acc: 0.0777 - mean\_s  
Epoch 3470/5000  
103/103 [=====] - 0s 29us/step - loss: 446.9325 - acc: 0.0777 - mean\_s  
Epoch 3471/5000  
103/103 [=====] - 0s 19us/step - loss: 446.6932 - acc: 0.0777 - mean\_s  
Epoch 3472/5000  
103/103 [=====] - 0s 29us/step - loss: 446.5015 - acc: 0.0777 - mean\_s  
Epoch 3473/5000  
103/103 [=====] - 0s 29us/step - loss: 446.3106 - acc: 0.0680 - mean\_s  
Epoch 3474/5000  
103/103 [=====] - 0s 29us/step - loss: 446.1051 - acc: 0.0680 - mean\_s  
Epoch 3475/5000  
103/103 [=====] - 0s 19us/step - loss: 445.9032 - acc: 0.0680 - mean\_s  
Epoch 3476/5000  
103/103 [=====] - 0s 19us/step - loss: 445.6720 - acc: 0.0777 - mean\_s  
Epoch 3477/5000  
103/103 [=====] - 0s 29us/step - loss: 445.4447 - acc: 0.0777 - mean\_s  
Epoch 3478/5000  
103/103 [=====] - 0s 19us/step - loss: 445.2505 - acc: 0.0777 - mean\_s  
Epoch 3479/5000  
103/103 [=====] - 0s 19us/step - loss: 445.0559 - acc: 0.0777 - mean\_s  
Epoch 3480/5000  
103/103 [=====] - 0s 29us/step - loss: 444.8415 - acc: 0.0680 - mean\_s  
Epoch 3481/5000  
103/103 [=====] - 0s 29us/step - loss: 444.6180 - acc: 0.0680 - mean\_s

Epoch 3482/5000  
103/103 [=====] - 0s 29us/step - loss: 444.4536 - acc: 0.0680 - mean\_s  
Epoch 3483/5000  
103/103 [=====] - 0s 29us/step - loss: 444.2137 - acc: 0.0680 - mean\_s  
Epoch 3484/5000  
103/103 [=====] - 0s 19us/step - loss: 444.0200 - acc: 0.0680 - mean\_s  
Epoch 3485/5000  
103/103 [=====] - 0s 19us/step - loss: 443.8062 - acc: 0.0583 - mean\_s  
Epoch 3486/5000  
103/103 [=====] - 0s 29us/step - loss: 443.6075 - acc: 0.0680 - mean\_s  
Epoch 3487/5000  
103/103 [=====] - 0s 19us/step - loss: 443.3907 - acc: 0.0680 - mean\_s  
Epoch 3488/5000  
103/103 [=====] - 0s 19us/step - loss: 443.1780 - acc: 0.0485 - mean\_s  
Epoch 3489/5000  
103/103 [=====] - 0s 19us/step - loss: 442.9901 - acc: 0.0485 - mean\_s  
Epoch 3490/5000  
103/103 [=====] - 0s 29us/step - loss: 442.7978 - acc: 0.0485 - mean\_s  
Epoch 3491/5000  
103/103 [=====] - 0s 29us/step - loss: 442.5830 - acc: 0.0485 - mean\_s  
Epoch 3492/5000  
103/103 [=====] - 0s 29us/step - loss: 442.3793 - acc: 0.0485 - mean\_s  
Epoch 3493/5000  
103/103 [=====] - 0s 19us/step - loss: 442.1585 - acc: 0.0485 - mean\_s  
Epoch 3494/5000  
103/103 [=====] - 0s 29us/step - loss: 441.9734 - acc: 0.0485 - mean\_s  
Epoch 3495/5000  
103/103 [=====] - 0s 29us/step - loss: 441.7569 - acc: 0.0485 - mean\_s  
Epoch 3496/5000  
103/103 [=====] - 0s 29us/step - loss: 441.5750 - acc: 0.0485 - mean\_s  
Epoch 3497/5000  
103/103 [=====] - 0s 19us/step - loss: 441.3828 - acc: 0.0485 - mean\_s  
Epoch 3498/5000  
103/103 [=====] - 0s 19us/step - loss: 441.1856 - acc: 0.0485 - mean\_s  
Epoch 3499/5000  
103/103 [=====] - 0s 19us/step - loss: 440.9844 - acc: 0.0485 - mean\_s  
Epoch 3500/5000  
103/103 [=====] - 0s 19us/step - loss: 440.7941 - acc: 0.0485 - mean\_s  
Epoch 3501/5000  
103/103 [=====] - 0s 19us/step - loss: 440.5851 - acc: 0.0485 - mean\_s  
Epoch 3502/5000  
103/103 [=====] - 0s 29us/step - loss: 440.3738 - acc: 0.0485 - mean\_s  
Epoch 3503/5000  
103/103 [=====] - 0s 19us/step - loss: 440.1829 - acc: 0.0485 - mean\_s  
Epoch 3504/5000  
103/103 [=====] - 0s 29us/step - loss: 439.9894 - acc: 0.0485 - mean\_s  
Epoch 3505/5000  
103/103 [=====] - 0s 29us/step - loss: 439.7888 - acc: 0.0485 - mean\_s



Epoch 3506/5000  
103/103 [=====] - 0s 29us/step - loss: 439.6591 - acc: 0.0485 - mean\_s  
Epoch 3507/5000  
103/103 [=====] - 0s 29us/step - loss: 439.4191 - acc: 0.0583 - mean\_s  
Epoch 3508/5000  
103/103 [=====] - 0s 29us/step - loss: 439.2609 - acc: 0.0583 - mean\_s  
Epoch 3509/5000  
103/103 [=====] - 0s 29us/step - loss: 439.0507 - acc: 0.0583 - mean\_s  
Epoch 3510/5000  
103/103 [=====] - 0s 29us/step - loss: 438.8695 - acc: 0.0583 - mean\_s  
Epoch 3511/5000  
103/103 [=====] - 0s 29us/step - loss: 438.6940 - acc: 0.0583 - mean\_s  
Epoch 3512/5000  
103/103 [=====] - 0s 19us/step - loss: 438.4750 - acc: 0.0583 - mean\_s  
Epoch 3513/5000  
103/103 [=====] - 0s 19us/step - loss: 438.2799 - acc: 0.0485 - mean\_s  
Epoch 3514/5000  
103/103 [=====] - 0s 29us/step - loss: 438.0806 - acc: 0.0485 - mean\_s  
Epoch 3515/5000  
103/103 [=====] - 0s 29us/step - loss: 437.9077 - acc: 0.0583 - mean\_s  
Epoch 3516/5000  
103/103 [=====] - 0s 19us/step - loss: 437.7081 - acc: 0.0583 - mean\_s  
Epoch 3517/5000  
103/103 [=====] - 0s 29us/step - loss: 437.4980 - acc: 0.0583 - mean\_s  
Epoch 3518/5000  
103/103 [=====] - 0s 29us/step - loss: 437.3011 - acc: 0.0583 - mean\_s  
Epoch 3519/5000  
103/103 [=====] - 0s 29us/step - loss: 437.1118 - acc: 0.0583 - mean\_s  
Epoch 3520/5000  
103/103 [=====] - 0s 19us/step - loss: 436.9193 - acc: 0.0583 - mean\_s  
Epoch 3521/5000  
103/103 [=====] - 0s 29us/step - loss: 436.7422 - acc: 0.0583 - mean\_s  
Epoch 3522/5000  
103/103 [=====] - 0s 29us/step - loss: 436.5540 - acc: 0.0583 - mean\_s  
Epoch 3523/5000  
103/103 [=====] - 0s 29us/step - loss: 436.3627 - acc: 0.0583 - mean\_s  
Epoch 3524/5000  
103/103 [=====] - 0s 29us/step - loss: 436.1662 - acc: 0.0583 - mean\_s  
Epoch 3525/5000  
103/103 [=====] - 0s 29us/step - loss: 435.9560 - acc: 0.0583 - mean\_s  
Epoch 3526/5000  
103/103 [=====] - 0s 19us/step - loss: 435.7836 - acc: 0.0583 - mean\_s  
Epoch 3527/5000  
103/103 [=====] - 0s 19us/step - loss: 435.5911 - acc: 0.0485 - mean\_s  
Epoch 3528/5000  
103/103 [=====] - 0s 29us/step - loss: 435.3853 - acc: 0.0485 - mean\_s  
Epoch 3529/5000  
103/103 [=====] - 0s 19us/step - loss: 435.1789 - acc: 0.0485 - mean\_s

Epoch 3530/5000  
103/103 [=====] - 0s 19us/step - loss: 435.0037 - acc: 0.0583 - mean\_s  
Epoch 3531/5000  
103/103 [=====] - 0s 19us/step - loss: 434.8040 - acc: 0.0583 - mean\_s  
Epoch 3532/5000  
103/103 [=====] - 0s 19us/step - loss: 434.6261 - acc: 0.0583 - mean\_s  
Epoch 3533/5000  
103/103 [=====] - 0s 29us/step - loss: 434.4696 - acc: 0.0583 - mean\_s  
Epoch 3534/5000  
103/103 [=====] - 0s 29us/step - loss: 434.2276 - acc: 0.0485 - mean\_s  
Epoch 3535/5000  
103/103 [=====] - 0s 29us/step - loss: 434.0322 - acc: 0.0485 - mean\_s  
Epoch 3536/5000  
103/103 [=====] - 0s 19us/step - loss: 433.8596 - acc: 0.0485 - mean\_s  
Epoch 3537/5000  
103/103 [=====] - 0s 19us/step - loss: 433.6581 - acc: 0.0485 - mean\_s  
Epoch 3538/5000  
103/103 [=====] - 0s 29us/step - loss: 433.4619 - acc: 0.0485 - mean\_s  
Epoch 3539/5000  
103/103 [=====] - 0s 29us/step - loss: 433.2830 - acc: 0.0485 - mean\_s  
Epoch 3540/5000  
103/103 [=====] - 0s 39us/step - loss: 433.0905 - acc: 0.0485 - mean\_s  
Epoch 3541/5000  
103/103 [=====] - 0s 29us/step - loss: 432.8705 - acc: 0.0485 - mean\_s  
Epoch 3542/5000  
103/103 [=====] - 0s 29us/step - loss: 432.7138 - acc: 0.0485 - mean\_s  
Epoch 3543/5000  
103/103 [=====] - 0s 19us/step - loss: 432.5537 - acc: 0.0485 - mean\_s  
Epoch 3544/5000  
103/103 [=====] - 0s 19us/step - loss: 432.3257 - acc: 0.0485 - mean\_s  
Epoch 3545/5000  
103/103 [=====] - 0s 19us/step - loss: 432.1327 - acc: 0.0485 - mean\_s  
Epoch 3546/5000  
103/103 [=====] - 0s 19us/step - loss: 431.9997 - acc: 0.0485 - mean\_s  
Epoch 3547/5000  
103/103 [=====] - 0s 29us/step - loss: 431.7922 - acc: 0.0485 - mean\_s  
Epoch 3548/5000  
103/103 [=====] - 0s 19us/step - loss: 431.6087 - acc: 0.0485 - mean\_s  
Epoch 3549/5000  
103/103 [=====] - 0s 19us/step - loss: 431.4300 - acc: 0.0485 - mean\_s  
Epoch 3550/5000  
103/103 [=====] - 0s 19us/step - loss: 431.2531 - acc: 0.0485 - mean\_s  
Epoch 3551/5000  
103/103 [=====] - 0s 19us/step - loss: 431.0572 - acc: 0.0583 - mean\_s  
Epoch 3552/5000  
103/103 [=====] - 0s 29us/step - loss: 430.8549 - acc: 0.0583 - mean\_s  
Epoch 3553/5000  
103/103 [=====] - 0s 19us/step - loss: 430.6565 - acc: 0.0583 - mean\_s

Epoch 3554/5000  
103/103 [=====] - 0s 29us/step - loss: 430.4736 - acc: 0.0583 - mean\_s  
Epoch 3555/5000  
103/103 [=====] - 0s 19us/step - loss: 430.3178 - acc: 0.0583 - mean\_s  
Epoch 3556/5000  
103/103 [=====] - 0s 39us/step - loss: 430.1024 - acc: 0.0583 - mean\_s  
Epoch 3557/5000  
103/103 [=====] - 0s 19us/step - loss: 429.9259 - acc: 0.0583 - mean\_s  
Epoch 3558/5000  
103/103 [=====] - 0s 19us/step - loss: 429.7317 - acc: 0.0583 - mean\_s  
Epoch 3559/5000  
103/103 [=====] - 0s 29us/step - loss: 429.5860 - acc: 0.0485 - mean\_s  
Epoch 3560/5000  
103/103 [=====] - 0s 29us/step - loss: 429.4094 - acc: 0.0485 - mean\_s  
Epoch 3561/5000  
103/103 [=====] - 0s 29us/step - loss: 429.2138 - acc: 0.0485 - mean\_s  
Epoch 3562/5000  
103/103 [=====] - 0s 19us/step - loss: 429.0302 - acc: 0.0485 - mean\_s  
Epoch 3563/5000  
103/103 [=====] - 0s 29us/step - loss: 428.8322 - acc: 0.0485 - mean\_s  
Epoch 3564/5000  
103/103 [=====] - 0s 29us/step - loss: 428.6616 - acc: 0.0485 - mean\_s  
Epoch 3565/5000  
103/103 [=====] - 0s 19us/step - loss: 428.4886 - acc: 0.0485 - mean\_s  
Epoch 3566/5000  
103/103 [=====] - 0s 19us/step - loss: 428.3172 - acc: 0.0485 - mean\_s  
Epoch 3567/5000  
103/103 [=====] - 0s 29us/step - loss: 428.1163 - acc: 0.0485 - mean\_s  
Epoch 3568/5000  
103/103 [=====] - 0s 29us/step - loss: 427.9778 - acc: 0.0485 - mean\_s  
Epoch 3569/5000  
103/103 [=====] - 0s 19us/step - loss: 427.7452 - acc: 0.0485 - mean\_s  
Epoch 3570/5000  
103/103 [=====] - 0s 19us/step - loss: 427.6075 - acc: 0.0485 - mean\_s  
Epoch 3571/5000  
103/103 [=====] - 0s 29us/step - loss: 427.4131 - acc: 0.0485 - mean\_s  
Epoch 3572/5000  
103/103 [=====] - 0s 19us/step - loss: 427.2197 - acc: 0.0485 - mean\_s  
Epoch 3573/5000  
103/103 [=====] - 0s 19us/step - loss: 427.0294 - acc: 0.0485 - mean\_s  
Epoch 3574/5000  
103/103 [=====] - 0s 19us/step - loss: 426.8557 - acc: 0.0485 - mean\_s  
Epoch 3575/5000  
103/103 [=====] - 0s 29us/step - loss: 426.6807 - acc: 0.0388 - mean\_s  
Epoch 3576/5000  
103/103 [=====] - 0s 19us/step - loss: 426.5108 - acc: 0.0388 - mean\_s  
Epoch 3577/5000  
103/103 [=====] - 0s 29us/step - loss: 426.2853 - acc: 0.0388 - mean\_s

Epoch 3578/5000  
103/103 [=====] - 0s 29us/step - loss: 426.0879 - acc: 0.0388 - mean\_s  
Epoch 3579/5000  
103/103 [=====] - 0s 29us/step - loss: 425.9268 - acc: 0.0388 - mean\_s  
Epoch 3580/5000  
103/103 [=====] - 0s 29us/step - loss: 425.7292 - acc: 0.0388 - mean\_s  
Epoch 3581/5000  
103/103 [=====] - 0s 29us/step - loss: 425.5436 - acc: 0.0388 - mean\_s  
Epoch 3582/5000  
103/103 [=====] - 0s 29us/step - loss: 425.3489 - acc: 0.0388 - mean\_s  
Epoch 3583/5000  
103/103 [=====] - 0s 29us/step - loss: 425.1418 - acc: 0.0388 - mean\_s  
Epoch 3584/5000  
103/103 [=====] - 0s 19us/step - loss: 424.9727 - acc: 0.0291 - mean\_s  
Epoch 3585/5000  
103/103 [=====] - 0s 29us/step - loss: 424.8225 - acc: 0.0388 - mean\_s  
Epoch 3586/5000  
103/103 [=====] - 0s 29us/step - loss: 424.5934 - acc: 0.0388 - mean\_s  
Epoch 3587/5000  
103/103 [=====] - 0s 19us/step - loss: 424.4160 - acc: 0.0388 - mean\_s  
Epoch 3588/5000  
103/103 [=====] - 0s 39us/step - loss: 424.2338 - acc: 0.0388 - mean\_s  
Epoch 3589/5000  
103/103 [=====] - 0s 29us/step - loss: 424.0385 - acc: 0.0388 - mean\_s  
Epoch 3590/5000  
103/103 [=====] - 0s 29us/step - loss: 423.8722 - acc: 0.0388 - mean\_s  
Epoch 3591/5000  
103/103 [=====] - 0s 29us/step - loss: 423.6842 - acc: 0.0388 - mean\_s  
Epoch 3592/5000  
103/103 [=====] - 0s 29us/step - loss: 423.4966 - acc: 0.0388 - mean\_s  
Epoch 3593/5000  
103/103 [=====] - 0s 29us/step - loss: 423.3027 - acc: 0.0291 - mean\_s  
Epoch 3594/5000  
103/103 [=====] - 0s 29us/step - loss: 423.1172 - acc: 0.0291 - mean\_s  
Epoch 3595/5000  
103/103 [=====] - 0s 19us/step - loss: 422.9319 - acc: 0.0291 - mean\_s  
Epoch 3596/5000  
103/103 [=====] - 0s 19us/step - loss: 422.7482 - acc: 0.0291 - mean\_s  
Epoch 3597/5000  
103/103 [=====] - 0s 29us/step - loss: 422.5745 - acc: 0.0291 - mean\_s  
Epoch 3598/5000  
103/103 [=====] - 0s 19us/step - loss: 422.4066 - acc: 0.0388 - mean\_s  
Epoch 3599/5000  
103/103 [=====] - 0s 19us/step - loss: 422.2357 - acc: 0.0388 - mean\_s  
Epoch 3600/5000  
103/103 [=====] - 0s 19us/step - loss: 422.0334 - acc: 0.0388 - mean\_s  
Epoch 3601/5000  
103/103 [=====] - 0s 19us/step - loss: 421.8569 - acc: 0.0388 - mean\_s

Epoch 3602/5000  
103/103 [=====] - 0s 19us/step - loss: 421.6862 - acc: 0.0291 - mean\_s  
Epoch 3603/5000  
103/103 [=====] - 0s 29us/step - loss: 421.5085 - acc: 0.0291 - mean\_s  
Epoch 3604/5000  
103/103 [=====] - 0s 29us/step - loss: 421.3404 - acc: 0.0291 - mean\_s  
Epoch 3605/5000  
103/103 [=====] - 0s 29us/step - loss: 421.1441 - acc: 0.0291 - mean\_s  
Epoch 3606/5000  
103/103 [=====] - 0s 19us/step - loss: 420.9634 - acc: 0.0291 - mean\_s  
Epoch 3607/5000  
103/103 [=====] - 0s 29us/step - loss: 420.7766 - acc: 0.0291 - mean\_s  
Epoch 3608/5000  
103/103 [=====] - 0s 19us/step - loss: 420.6048 - acc: 0.0291 - mean\_s  
Epoch 3609/5000  
103/103 [=====] - 0s 19us/step - loss: 420.4297 - acc: 0.0291 - mean\_s  
Epoch 3610/5000  
103/103 [=====] - 0s 29us/step - loss: 420.2391 - acc: 0.0291 - mean\_s  
Epoch 3611/5000  
103/103 [=====] - 0s 29us/step - loss: 420.0622 - acc: 0.0291 - mean\_s  
Epoch 3612/5000  
103/103 [=====] - 0s 29us/step - loss: 419.9118 - acc: 0.0291 - mean\_s  
Epoch 3613/5000  
103/103 [=====] - 0s 19us/step - loss: 419.7519 - acc: 0.0291 - mean\_s  
Epoch 3614/5000  
103/103 [=====] - 0s 19us/step - loss: 419.5725 - acc: 0.0291 - mean\_s  
Epoch 3615/5000  
103/103 [=====] - 0s 19us/step - loss: 419.3805 - acc: 0.0291 - mean\_s  
Epoch 3616/5000  
103/103 [=====] - 0s 19us/step - loss: 419.2274 - acc: 0.0291 - mean\_s  
Epoch 3617/5000  
103/103 [=====] - 0s 29us/step - loss: 419.0406 - acc: 0.0291 - mean\_s  
Epoch 3618/5000  
103/103 [=====] - 0s 29us/step - loss: 418.8266 - acc: 0.0291 - mean\_s  
Epoch 3619/5000  
103/103 [=====] - 0s 19us/step - loss: 418.6511 - acc: 0.0291 - mean\_s  
Epoch 3620/5000  
103/103 [=====] - 0s 29us/step - loss: 418.4895 - acc: 0.0291 - mean\_s  
Epoch 3621/5000  
103/103 [=====] - 0s 29us/step - loss: 418.3147 - acc: 0.0291 - mean\_s  
Epoch 3622/5000  
103/103 [=====] - 0s 29us/step - loss: 418.1222 - acc: 0.0291 - mean\_s  
Epoch 3623/5000  
103/103 [=====] - 0s 29us/step - loss: 417.9406 - acc: 0.0291 - mean\_s  
Epoch 3624/5000  
103/103 [=====] - 0s 29us/step - loss: 417.7516 - acc: 0.0291 - mean\_s  
Epoch 3625/5000  
103/103 [=====] - 0s 19us/step - loss: 417.5677 - acc: 0.0291 - mean\_s

Epoch 3626/5000  
103/103 [=====] - 0s 29us/step - loss: 417.3922 - acc: 0.0291 - mean\_s  
Epoch 3627/5000  
103/103 [=====] - 0s 19us/step - loss: 417.2057 - acc: 0.0291 - mean\_s  
Epoch 3628/5000  
103/103 [=====] - 0s 19us/step - loss: 417.0230 - acc: 0.0291 - mean\_s  
Epoch 3629/5000  
103/103 [=====] - 0s 29us/step - loss: 416.8583 - acc: 0.0291 - mean\_s  
Epoch 3630/5000  
103/103 [=====] - 0s 29us/step - loss: 416.6601 - acc: 0.0291 - mean\_s  
Epoch 3631/5000  
103/103 [=====] - 0s 29us/step - loss: 416.5133 - acc: 0.0291 - mean\_s  
Epoch 3632/5000  
103/103 [=====] - 0s 29us/step - loss: 416.3148 - acc: 0.0291 - mean\_s  
Epoch 3633/5000  
103/103 [=====] - 0s 19us/step - loss: 416.1451 - acc: 0.0291 - mean\_s  
Epoch 3634/5000  
103/103 [=====] - 0s 29us/step - loss: 415.9768 - acc: 0.0291 - mean\_s  
Epoch 3635/5000  
103/103 [=====] - 0s 29us/step - loss: 415.7866 - acc: 0.0194 - mean\_s  
Epoch 3636/5000  
103/103 [=====] - 0s 29us/step - loss: 415.6040 - acc: 0.0194 - mean\_s  
Epoch 3637/5000  
103/103 [=====] - 0s 29us/step - loss: 415.4347 - acc: 0.0194 - mean\_s  
Epoch 3638/5000  
103/103 [=====] - 0s 29us/step - loss: 415.2605 - acc: 0.0194 - mean\_s  
Epoch 3639/5000  
103/103 [=====] - 0s 19us/step - loss: 415.0672 - acc: 0.0291 - mean\_s  
Epoch 3640/5000  
103/103 [=====] - 0s 19us/step - loss: 414.8877 - acc: 0.0291 - mean\_s  
Epoch 3641/5000  
103/103 [=====] - 0s 19us/step - loss: 414.7063 - acc: 0.0291 - mean\_s  
Epoch 3642/5000  
103/103 [=====] - 0s 19us/step - loss: 414.5548 - acc: 0.0291 - mean\_s  
Epoch 3643/5000  
103/103 [=====] - 0s 29us/step - loss: 414.3605 - acc: 0.0291 - mean\_s  
Epoch 3644/5000  
103/103 [=====] - 0s 29us/step - loss: 414.1954 - acc: 0.0291 - mean\_s  
Epoch 3645/5000  
103/103 [=====] - 0s 29us/step - loss: 414.0046 - acc: 0.0291 - mean\_s  
Epoch 3646/5000  
103/103 [=====] - 0s 19us/step - loss: 413.8420 - acc: 0.0291 - mean\_s  
Epoch 3647/5000  
103/103 [=====] - 0s 29us/step - loss: 413.6495 - acc: 0.0291 - mean\_s  
Epoch 3648/5000  
103/103 [=====] - 0s 29us/step - loss: 413.5007 - acc: 0.0194 - mean\_s  
Epoch 3649/5000  
103/103 [=====] - 0s 29us/step - loss: 413.3455 - acc: 0.0194 - mean\_s

Epoch 3650/5000  
103/103 [=====] - 0s 29us/step - loss: 413.1280 - acc: 0.0097 - mean\_s  
Epoch 3651/5000  
103/103 [=====] - 0s 29us/step - loss: 412.9780 - acc: 0.0097 - mean\_s  
Epoch 3652/5000  
103/103 [=====] - 0s 29us/step - loss: 412.7964 - acc: 0.0097 - mean\_s  
Epoch 3653/5000  
103/103 [=====] - 0s 19us/step - loss: 412.6044 - acc: 0.0194 - mean\_s  
Epoch 3654/5000  
103/103 [=====] - 0s 19us/step - loss: 412.4193 - acc: 0.0194 - mean\_s  
Epoch 3655/5000  
103/103 [=====] - 0s 19us/step - loss: 412.2312 - acc: 0.0194 - mean\_s  
Epoch 3656/5000  
103/103 [=====] - 0s 29us/step - loss: 412.0744 - acc: 0.0194 - mean\_s  
Epoch 3657/5000  
103/103 [=====] - 0s 29us/step - loss: 411.8796 - acc: 0.0194 - mean\_s  
Epoch 3658/5000  
103/103 [=====] - 0s 29us/step - loss: 411.7033 - acc: 0.0194 - mean\_s  
Epoch 3659/5000  
103/103 [=====] - 0s 49us/step - loss: 411.5616 - acc: 0.0291 - mean\_s  
Epoch 3660/5000  
103/103 [=====] - 0s 39us/step - loss: 411.3492 - acc: 0.0291 - mean\_s  
Epoch 3661/5000  
103/103 [=====] - 0s 29us/step - loss: 411.1611 - acc: 0.0291 - mean\_s  
Epoch 3662/5000  
103/103 [=====] - 0s 39us/step - loss: 411.0024 - acc: 0.0291 - mean\_s  
Epoch 3663/5000  
103/103 [=====] - 0s 29us/step - loss: 410.8176 - acc: 0.0388 - mean\_s  
Epoch 3664/5000  
103/103 [=====] - 0s 29us/step - loss: 410.6402 - acc: 0.0291 - mean\_s  
Epoch 3665/5000  
103/103 [=====] - 0s 39us/step - loss: 410.4500 - acc: 0.0291 - mean\_s  
Epoch 3666/5000  
103/103 [=====] - 0s 29us/step - loss: 410.2845 - acc: 0.0388 - mean\_s  
Epoch 3667/5000  
103/103 [=====] - 0s 29us/step - loss: 410.1167 - acc: 0.0388 - mean\_s  
Epoch 3668/5000  
103/103 [=====] - 0s 29us/step - loss: 409.9531 - acc: 0.0388 - mean\_s  
Epoch 3669/5000  
103/103 [=====] - 0s 19us/step - loss: 409.7331 - acc: 0.0388 - mean\_s  
Epoch 3670/5000  
103/103 [=====] - 0s 29us/step - loss: 409.5769 - acc: 0.0388 - mean\_s  
Epoch 3671/5000  
103/103 [=====] - 0s 29us/step - loss: 409.3887 - acc: 0.0388 - mean\_s  
Epoch 3672/5000  
103/103 [=====] - 0s 19us/step - loss: 409.1961 - acc: 0.0388 - mean\_s  
Epoch 3673/5000  
103/103 [=====] - 0s 29us/step - loss: 409.0518 - acc: 0.0388 - mean\_s

Epoch 3674/5000  
103/103 [=====] - 0s 29us/step - loss: 408.8467 - acc: 0.0388 - mean\_s  
Epoch 3675/5000  
103/103 [=====] - 0s 29us/step - loss: 408.6873 - acc: 0.0388 - mean\_s  
Epoch 3676/5000  
103/103 [=====] - 0s 19us/step - loss: 408.5188 - acc: 0.0388 - mean\_s  
Epoch 3677/5000  
103/103 [=====] - 0s 29us/step - loss: 408.3581 - acc: 0.0485 - mean\_s  
Epoch 3678/5000  
103/103 [=====] - 0s 19us/step - loss: 408.1577 - acc: 0.0485 - mean\_s  
Epoch 3679/5000  
103/103 [=====] - 0s 19us/step - loss: 408.0103 - acc: 0.0388 - mean\_s  
Epoch 3680/5000  
103/103 [=====] - 0s 19us/step - loss: 407.8418 - acc: 0.0388 - mean\_s  
Epoch 3681/5000  
103/103 [=====] - 0s 29us/step - loss: 407.6621 - acc: 0.0485 - mean\_s  
Epoch 3682/5000  
103/103 [=====] - 0s 19us/step - loss: 407.4836 - acc: 0.0485 - mean\_s  
Epoch 3683/5000  
103/103 [=====] - 0s 19us/step - loss: 407.3125 - acc: 0.0485 - mean\_s  
Epoch 3684/5000  
103/103 [=====] - 0s 19us/step - loss: 407.1394 - acc: 0.0485 - mean\_s  
Epoch 3685/5000  
103/103 [=====] - 0s 29us/step - loss: 406.9319 - acc: 0.0485 - mean\_s  
Epoch 3686/5000  
103/103 [=====] - 0s 29us/step - loss: 406.7581 - acc: 0.0485 - mean\_s  
Epoch 3687/5000  
103/103 [=====] - 0s 29us/step - loss: 406.5964 - acc: 0.0485 - mean\_s  
Epoch 3688/5000  
103/103 [=====] - 0s 29us/step - loss: 406.4129 - acc: 0.0485 - mean\_s  
Epoch 3689/5000  
103/103 [=====] - 0s 29us/step - loss: 406.2280 - acc: 0.0485 - mean\_s  
Epoch 3690/5000  
103/103 [=====] - 0s 19us/step - loss: 406.0641 - acc: 0.0485 - mean\_s  
Epoch 3691/5000  
103/103 [=====] - 0s 19us/step - loss: 405.8822 - acc: 0.0485 - mean\_s  
Epoch 3692/5000  
103/103 [=====] - 0s 29us/step - loss: 405.7083 - acc: 0.0485 - mean\_s  
Epoch 3693/5000  
103/103 [=====] - 0s 19us/step - loss: 405.5662 - acc: 0.0485 - mean\_s  
Epoch 3694/5000  
103/103 [=====] - 0s 19us/step - loss: 405.4072 - acc: 0.0388 - mean\_s  
Epoch 3695/5000  
103/103 [=====] - 0s 19us/step - loss: 405.2109 - acc: 0.0388 - mean\_s  
Epoch 3696/5000  
103/103 [=====] - 0s 29us/step - loss: 405.0389 - acc: 0.0485 - mean\_s  
Epoch 3697/5000  
103/103 [=====] - 0s 29us/step - loss: 404.8648 - acc: 0.0583 - mean\_s



Epoch 3698/5000  
103/103 [=====] - 0s 29us/step - loss: 404.6896 - acc: 0.0583 - mean\_s  
Epoch 3699/5000  
103/103 [=====] - 0s 19us/step - loss: 404.5072 - acc: 0.0583 - mean\_s  
Epoch 3700/5000  
103/103 [=====] - 0s 29us/step - loss: 404.3488 - acc: 0.0583 - mean\_s  
Epoch 3701/5000  
103/103 [=====] - 0s 29us/step - loss: 404.1753 - acc: 0.0583 - mean\_s  
Epoch 3702/5000  
103/103 [=====] - 0s 19us/step - loss: 403.9844 - acc: 0.0583 - mean\_s  
Epoch 3703/5000  
103/103 [=====] - 0s 19us/step - loss: 403.8018 - acc: 0.0583 - mean\_s  
Epoch 3704/5000  
103/103 [=====] - 0s 29us/step - loss: 403.6323 - acc: 0.0485 - mean\_s  
Epoch 3705/5000  
103/103 [=====] - 0s 29us/step - loss: 403.4921 - acc: 0.0485 - mean\_s  
Epoch 3706/5000  
103/103 [=====] - 0s 19us/step - loss: 403.2639 - acc: 0.0583 - mean\_s  
Epoch 3707/5000  
103/103 [=====] - 0s 29us/step - loss: 403.1067 - acc: 0.0583 - mean\_s  
Epoch 3708/5000  
103/103 [=====] - 0s 29us/step - loss: 402.9568 - acc: 0.0583 - mean\_s  
Epoch 3709/5000  
103/103 [=====] - 0s 19us/step - loss: 402.7849 - acc: 0.0583 - mean\_s  
Epoch 3710/5000  
103/103 [=====] - 0s 19us/step - loss: 402.6155 - acc: 0.0583 - mean\_s  
Epoch 3711/5000  
103/103 [=====] - 0s 29us/step - loss: 402.4416 - acc: 0.0485 - mean\_s  
Epoch 3712/5000  
103/103 [=====] - 0s 29us/step - loss: 402.2769 - acc: 0.0583 - mean\_s  
Epoch 3713/5000  
103/103 [=====] - 0s 29us/step - loss: 402.0989 - acc: 0.0485 - mean\_s  
Epoch 3714/5000  
103/103 [=====] - 0s 29us/step - loss: 401.9386 - acc: 0.0485 - mean\_s  
Epoch 3715/5000  
103/103 [=====] - 0s 29us/step - loss: 401.7562 - acc: 0.0485 - mean\_s  
Epoch 3716/5000  
103/103 [=====] - 0s 19us/step - loss: 401.5845 - acc: 0.0485 - mean\_s  
Epoch 3717/5000  
103/103 [=====] - 0s 29us/step - loss: 401.4117 - acc: 0.0485 - mean\_s  
Epoch 3718/5000  
103/103 [=====] - 0s 19us/step - loss: 401.2064 - acc: 0.0485 - mean\_s  
Epoch 3719/5000  
103/103 [=====] - 0s 29us/step - loss: 401.0576 - acc: 0.0485 - mean\_s  
Epoch 3720/5000  
103/103 [=====] - 0s 29us/step - loss: 400.9079 - acc: 0.0485 - mean\_s  
Epoch 3721/5000  
103/103 [=====] - 0s 19us/step - loss: 400.7330 - acc: 0.0485 - mean\_s

Epoch 3722/5000  
103/103 [=====] - 0s 19us/step - loss: 400.5362 - acc: 0.0388 - mean\_s  
Epoch 3723/5000  
103/103 [=====] - 0s 29us/step - loss: 400.3614 - acc: 0.0388 - mean\_s  
Epoch 3724/5000  
103/103 [=====] - 0s 29us/step - loss: 400.1979 - acc: 0.0388 - mean\_s  
Epoch 3725/5000  
103/103 [=====] - 0s 19us/step - loss: 400.0405 - acc: 0.0388 - mean\_s  
Epoch 3726/5000  
103/103 [=====] - 0s 19us/step - loss: 399.8550 - acc: 0.0388 - mean\_s  
Epoch 3727/5000  
103/103 [=====] - 0s 19us/step - loss: 399.6820 - acc: 0.0388 - mean\_s  
Epoch 3728/5000  
103/103 [=====] - 0s 29us/step - loss: 399.5348 - acc: 0.0388 - mean\_s  
Epoch 3729/5000  
103/103 [=====] - 0s 19us/step - loss: 399.3535 - acc: 0.0388 - mean\_s  
Epoch 3730/5000  
103/103 [=====] - 0s 29us/step - loss: 399.1775 - acc: 0.0388 - mean\_s  
Epoch 3731/5000  
103/103 [=====] - 0s 29us/step - loss: 398.9930 - acc: 0.0388 - mean\_s  
Epoch 3732/5000  
103/103 [=====] - 0s 29us/step - loss: 398.8296 - acc: 0.0291 - mean\_s  
Epoch 3733/5000  
103/103 [=====] - 0s 19us/step - loss: 398.6597 - acc: 0.0291 - mean\_s  
Epoch 3734/5000  
103/103 [=====] - 0s 19us/step - loss: 398.5076 - acc: 0.0291 - mean\_s  
Epoch 3735/5000  
103/103 [=====] - 0s 19us/step - loss: 398.3162 - acc: 0.0291 - mean\_s  
Epoch 3736/5000  
103/103 [=====] - 0s 29us/step - loss: 398.1229 - acc: 0.0291 - mean\_s  
Epoch 3737/5000  
103/103 [=====] - 0s 19us/step - loss: 397.9581 - acc: 0.0291 - mean\_s  
Epoch 3738/5000  
103/103 [=====] - 0s 29us/step - loss: 397.7948 - acc: 0.0291 - mean\_s  
Epoch 3739/5000  
103/103 [=====] - 0s 19us/step - loss: 397.6516 - acc: 0.0291 - mean\_s  
Epoch 3740/5000  
103/103 [=====] - 0s 19us/step - loss: 397.4301 - acc: 0.0291 - mean\_s  
Epoch 3741/5000  
103/103 [=====] - 0s 19us/step - loss: 397.2815 - acc: 0.0291 - mean\_s  
Epoch 3742/5000  
103/103 [=====] - 0s 39us/step - loss: 397.1100 - acc: 0.0291 - mean\_s  
Epoch 3743/5000  
103/103 [=====] - 0s 19us/step - loss: 396.9420 - acc: 0.0291 - mean\_s  
Epoch 3744/5000  
103/103 [=====] - 0s 19us/step - loss: 396.7649 - acc: 0.0291 - mean\_s  
Epoch 3745/5000  
103/103 [=====] - 0s 29us/step - loss: 396.5733 - acc: 0.0291 - mean\_s

```

Epoch 3746/5000
103/103 [=====] - 0s 19us/step - loss: 396.4583 - acc: 0.0291 - mean_s
Epoch 3747/5000
103/103 [=====] - 0s 19us/step - loss: 396.2672 - acc: 0.0291 - mean_s
Epoch 3748/5000
103/103 [=====] - 0s 19us/step - loss: 396.0927 - acc: 0.0291 - mean_s
Epoch 3749/5000
103/103 [=====] - 0s 29us/step - loss: 395.9048 - acc: 0.0291 - mean_s
Epoch 3750/5000
103/103 [=====] - 0s 29us/step - loss: 395.7306 - acc: 0.0194 - mean_s
Epoch 3751/5000
103/103 [=====] - 0s 29us/step - loss: 395.5591 - acc: 0.0194 - mean_s
Epoch 3752/5000
103/103 [=====] - 0s 29us/step - loss: 395.3724 - acc: 0.0194 - mean_s
Epoch 3753/5000
103/103 [=====] - 0s 19us/step - loss: 395.1931 - acc: 0.0194 - mean_s
Epoch 3754/5000
103/103 [=====] - 0s 19us/step - loss: 395.0089 - acc: 0.0194 - mean_s
Epoch 3755/5000
103/103 [=====] - 0s 29us/step - loss: 394.8493 - acc: 0.0291 - mean_s
Epoch 3756/5000
103/103 [=====] - 0s 29us/step - loss: 394.6834 - acc: 0.0291 - mean_s
Epoch 3757/5000
103/103 [=====] - 0s 29us/step - loss: 394.5022 - acc: 0.0291 - mean_s
Epoch 3758/5000
103/103 [=====] - 0s 29us/step - loss: 394.3430 - acc: 0.0291 - mean_s
Epoch 3759/5000
103/103 [=====] - 0s 29us/step - loss: 394.1827 - acc: 0.0291 - mean_s
Epoch 3760/5000
103/103 [=====] - 0s 29us/step - loss: 393.9997 - acc: 0.0291 - mean_s
Epoch 3761/5000
103/103 [=====] - 0s 19us/step - loss: 393.8266 - acc: 0.0291 - mean_s
Epoch 3762/5000
103/103 [=====] - 0s 19us/step - loss: 393.6686 - acc: 0.0291 - mean_s
Epoch 3763/5000
103/103 [=====] - 0s 29us/step - loss: 393.4687 - acc: 0.0291 - mean_s
Epoch 3764/5000
103/103 [=====] - 0s 19us/step - loss: 393.3078 - acc: 0.0291 - mean_s
Epoch 3765/5000
103/103 [=====] - 0s 29us/step - loss: 393.1415 - acc: 0.0291 - mean_s
Epoch 3766/5000
103/103 [=====] - 0s 19us/step - loss: 392.9529 - acc: 0.0291 - mean_s
Epoch 3767/5000
103/103 [=====] - 0s 19us/step - loss: 392.7571 - acc: 0.0291 - mean_s
Epoch 3768/5000
103/103 [=====] - 0s 29us/step - loss: 392.5856 - acc: 0.0291 - mean_s
Epoch 3769/5000
103/103 [=====] - 0s 29us/step - loss: 392.3970 - acc: 0.0291 - mean_s

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Epoch 3770/5000  
103/103 [=====] - 0s 19us/step - loss: 392.1989 - acc: 0.0291 - mean\_s  
Epoch 3771/5000  
103/103 [=====] - 0s 19us/step - loss: 391.9983 - acc: 0.0194 - mean\_s  
Epoch 3772/5000  
103/103 [=====] - 0s 29us/step - loss: 391.7987 - acc: 0.0194 - mean\_s  
Epoch 3773/5000  
103/103 [=====] - 0s 29us/step - loss: 391.5922 - acc: 0.0194 - mean\_s  
Epoch 3774/5000  
103/103 [=====] - 0s 19us/step - loss: 391.3986 - acc: 0.0194 - mean\_s  
Epoch 3775/5000  
103/103 [=====] - 0s 19us/step - loss: 391.2353 - acc: 0.0291 - mean\_s  
Epoch 3776/5000  
103/103 [=====] - 0s 19us/step - loss: 391.0318 - acc: 0.0194 - mean\_s  
Epoch 3777/5000  
103/103 [=====] - 0s 19us/step - loss: 390.8369 - acc: 0.0194 - mean\_s  
Epoch 3778/5000  
103/103 [=====] - 0s 29us/step - loss: 390.6554 - acc: 0.0194 - mean\_s  
Epoch 3779/5000  
103/103 [=====] - 0s 29us/step - loss: 390.4518 - acc: 0.0194 - mean\_s  
Epoch 3780/5000  
103/103 [=====] - 0s 29us/step - loss: 390.2948 - acc: 0.0194 - mean\_s  
Epoch 3781/5000  
103/103 [=====] - 0s 29us/step - loss: 390.1158 - acc: 0.0097 - mean\_s  
Epoch 3782/5000  
103/103 [=====] - 0s 29us/step - loss: 389.9155 - acc: 0.0097 - mean\_s  
Epoch 3783/5000  
103/103 [=====] - 0s 29us/step - loss: 389.7250 - acc: 0.0194 - mean\_s  
Epoch 3784/5000  
103/103 [=====] - 0s 29us/step - loss: 389.5254 - acc: 0.0194 - mean\_s  
Epoch 3785/5000  
103/103 [=====] - 0s 29us/step - loss: 389.3317 - acc: 0.0194 - mean\_s  
Epoch 3786/5000  
103/103 [=====] - 0s 29us/step - loss: 389.1418 - acc: 0.0194 - mean\_s  
Epoch 3787/5000  
103/103 [=====] - 0s 29us/step - loss: 388.9398 - acc: 0.0291 - mean\_s  
Epoch 3788/5000  
103/103 [=====] - 0s 19us/step - loss: 388.7494 - acc: 0.0291 - mean\_s  
Epoch 3789/5000  
103/103 [=====] - 0s 19us/step - loss: 388.5396 - acc: 0.0291 - mean\_s  
Epoch 3790/5000  
103/103 [=====] - 0s 29us/step - loss: 388.3803 - acc: 0.0291 - mean\_s  
Epoch 3791/5000  
103/103 [=====] - 0s 29us/step - loss: 388.1897 - acc: 0.0291 - mean\_s  
Epoch 3792/5000  
103/103 [=====] - 0s 29us/step - loss: 388.0022 - acc: 0.0291 - mean\_s  
Epoch 3793/5000  
103/103 [=====] - 0s 29us/step - loss: 387.8144 - acc: 0.0291 - mean\_s

Epoch 3794/5000  
103/103 [=====] - 0s 19us/step - loss: 387.6048 - acc: 0.0291 - mean\_s  
Epoch 3795/5000  
103/103 [=====] - 0s 19us/step - loss: 387.4144 - acc: 0.0291 - mean\_s  
Epoch 3796/5000  
103/103 [=====] - 0s 19us/step - loss: 387.2584 - acc: 0.0291 - mean\_s  
Epoch 3797/5000  
103/103 [=====] - 0s 19us/step - loss: 387.0637 - acc: 0.0291 - mean\_s  
Epoch 3798/5000  
103/103 [=====] - 0s 19us/step - loss: 386.8525 - acc: 0.0291 - mean\_s  
Epoch 3799/5000  
103/103 [=====] - 0s 19us/step - loss: 386.6600 - acc: 0.0291 - mean\_s  
Epoch 3800/5000  
103/103 [=====] - 0s 29us/step - loss: 386.4890 - acc: 0.0291 - mean\_s  
Epoch 3801/5000  
103/103 [=====] - 0s 29us/step - loss: 386.3059 - acc: 0.0291 - mean\_s  
Epoch 3802/5000  
103/103 [=====] - 0s 29us/step - loss: 386.1152 - acc: 0.0291 - mean\_s  
Epoch 3803/5000  
103/103 [=====] - 0s 29us/step - loss: 385.9332 - acc: 0.0388 - mean\_s  
Epoch 3804/5000  
103/103 [=====] - 0s 19us/step - loss: 385.7502 - acc: 0.0388 - mean\_s  
Epoch 3805/5000  
103/103 [=====] - 0s 19us/step - loss: 385.5711 - acc: 0.0291 - mean\_s  
Epoch 3806/5000  
103/103 [=====] - 0s 19us/step - loss: 385.3669 - acc: 0.0291 - mean\_s  
Epoch 3807/5000  
103/103 [=====] - 0s 29us/step - loss: 385.1736 - acc: 0.0388 - mean\_s  
Epoch 3808/5000  
103/103 [=====] - 0s 29us/step - loss: 384.9888 - acc: 0.0388 - mean\_s  
Epoch 3809/5000  
103/103 [=====] - 0s 29us/step - loss: 384.8059 - acc: 0.0388 - mean\_s  
Epoch 3810/5000  
103/103 [=====] - 0s 29us/step - loss: 384.6190 - acc: 0.0388 - mean\_s  
Epoch 3811/5000  
103/103 [=====] - 0s 29us/step - loss: 384.4343 - acc: 0.0388 - mean\_s  
Epoch 3812/5000  
103/103 [=====] - 0s 29us/step - loss: 384.2617 - acc: 0.0388 - mean\_s  
Epoch 3813/5000  
103/103 [=====] - 0s 29us/step - loss: 384.0549 - acc: 0.0388 - mean\_s  
Epoch 3814/5000  
103/103 [=====] - 0s 29us/step - loss: 383.8601 - acc: 0.0388 - mean\_s  
Epoch 3815/5000  
103/103 [=====] - 0s 29us/step - loss: 383.6907 - acc: 0.0388 - mean\_s  
Epoch 3816/5000  
103/103 [=====] - 0s 19us/step - loss: 383.4956 - acc: 0.0388 - mean\_s  
Epoch 3817/5000  
103/103 [=====] - 0s 29us/step - loss: 383.2999 - acc: 0.0388 - mean\_s

Epoch 3818/5000  
103/103 [=====] - 0s 19us/step - loss: 383.1130 - acc: 0.0388 - mean\_s  
Epoch 3819/5000  
103/103 [=====] - 0s 19us/step - loss: 382.9361 - acc: 0.0388 - mean\_s  
Epoch 3820/5000  
103/103 [=====] - 0s 29us/step - loss: 382.7459 - acc: 0.0388 - mean\_s  
Epoch 3821/5000  
103/103 [=====] - 0s 29us/step - loss: 382.5637 - acc: 0.0388 - mean\_s  
Epoch 3822/5000  
103/103 [=====] - 0s 19us/step - loss: 382.3776 - acc: 0.0388 - mean\_s  
Epoch 3823/5000  
103/103 [=====] - 0s 19us/step - loss: 382.2000 - acc: 0.0388 - mean\_s  
Epoch 3824/5000  
103/103 [=====] - 0s 29us/step - loss: 382.0256 - acc: 0.0388 - mean\_s  
Epoch 3825/5000  
103/103 [=====] - 0s 29us/step - loss: 381.8406 - acc: 0.0388 - mean\_s  
Epoch 3826/5000  
103/103 [=====] - 0s 29us/step - loss: 381.6714 - acc: 0.0388 - mean\_s  
Epoch 3827/5000  
103/103 [=====] - 0s 19us/step - loss: 381.4944 - acc: 0.0388 - mean\_s  
Epoch 3828/5000  
103/103 [=====] - 0s 29us/step - loss: 381.3062 - acc: 0.0388 - mean\_s  
Epoch 3829/5000  
103/103 [=====] - 0s 19us/step - loss: 381.0981 - acc: 0.0388 - mean\_s  
Epoch 3830/5000  
103/103 [=====] - 0s 29us/step - loss: 380.9243 - acc: 0.0388 - mean\_s  
Epoch 3831/5000  
103/103 [=====] - 0s 29us/step - loss: 380.7426 - acc: 0.0388 - mean\_s  
Epoch 3832/5000  
103/103 [=====] - 0s 29us/step - loss: 380.5776 - acc: 0.0388 - mean\_s  
Epoch 3833/5000  
103/103 [=====] - 0s 29us/step - loss: 380.3610 - acc: 0.0388 - mean\_s  
Epoch 3834/5000  
103/103 [=====] - 0s 19us/step - loss: 380.1969 - acc: 0.0388 - mean\_s  
Epoch 3835/5000  
103/103 [=====] - 0s 19us/step - loss: 380.0075 - acc: 0.0485 - mean\_s  
Epoch 3836/5000  
103/103 [=====] - 0s 19us/step - loss: 379.8178 - acc: 0.0485 - mean\_s  
Epoch 3837/5000  
103/103 [=====] - 0s 19us/step - loss: 379.6397 - acc: 0.0485 - mean\_s  
Epoch 3838/5000  
103/103 [=====] - 0s 29us/step - loss: 379.4339 - acc: 0.0485 - mean\_s  
Epoch 3839/5000  
103/103 [=====] - 0s 19us/step - loss: 379.2448 - acc: 0.0485 - mean\_s  
Epoch 3840/5000  
103/103 [=====] - 0s 19us/step - loss: 379.0687 - acc: 0.0485 - mean\_s  
Epoch 3841/5000  
103/103 [=====] - 0s 29us/step - loss: 378.8911 - acc: 0.0485 - mean\_s

Epoch 3842/5000  
103/103 [=====] - 0s 19us/step - loss: 378.7186 - acc: 0.0485 - mean\_s  
Epoch 3843/5000  
103/103 [=====] - 0s 29us/step - loss: 378.5375 - acc: 0.0485 - mean\_s  
Epoch 3844/5000  
103/103 [=====] - 0s 19us/step - loss: 378.3292 - acc: 0.0485 - mean\_s  
Epoch 3845/5000  
103/103 [=====] - 0s 29us/step - loss: 378.2053 - acc: 0.0485 - mean\_s  
Epoch 3846/5000  
103/103 [=====] - 0s 19us/step - loss: 377.9934 - acc: 0.0485 - mean\_s  
Epoch 3847/5000  
103/103 [=====] - 0s 29us/step - loss: 377.8124 - acc: 0.0485 - mean\_s  
Epoch 3848/5000  
103/103 [=====] - 0s 29us/step - loss: 377.6399 - acc: 0.0485 - mean\_s  
Epoch 3849/5000  
103/103 [=====] - 0s 19us/step - loss: 377.4900 - acc: 0.0485 - mean\_s  
Epoch 3850/5000  
103/103 [=====] - 0s 19us/step - loss: 377.2998 - acc: 0.0485 - mean\_s  
Epoch 3851/5000  
103/103 [=====] - 0s 29us/step - loss: 377.0811 - acc: 0.0485 - mean\_s  
Epoch 3852/5000  
103/103 [=====] - 0s 19us/step - loss: 376.9140 - acc: 0.0485 - mean\_s  
Epoch 3853/5000  
103/103 [=====] - 0s 19us/step - loss: 376.7583 - acc: 0.0485 - mean\_s  
Epoch 3854/5000  
103/103 [=====] - 0s 29us/step - loss: 376.5430 - acc: 0.0485 - mean\_s  
Epoch 3855/5000  
103/103 [=====] - 0s 29us/step - loss: 376.3554 - acc: 0.0485 - mean\_s  
Epoch 3856/5000  
103/103 [=====] - 0s 29us/step - loss: 376.1790 - acc: 0.0485 - mean\_s  
Epoch 3857/5000  
103/103 [=====] - 0s 29us/step - loss: 375.9850 - acc: 0.0485 - mean\_s  
Epoch 3858/5000  
103/103 [=====] - 0s 19us/step - loss: 375.7842 - acc: 0.0485 - mean\_s  
Epoch 3859/5000  
103/103 [=====] - 0s 29us/step - loss: 375.6113 - acc: 0.0485 - mean\_s  
Epoch 3860/5000  
103/103 [=====] - 0s 29us/step - loss: 375.4201 - acc: 0.0485 - mean\_s  
Epoch 3861/5000  
103/103 [=====] - 0s 29us/step - loss: 375.2240 - acc: 0.0485 - mean\_s  
Epoch 3862/5000  
103/103 [=====] - 0s 19us/step - loss: 375.0125 - acc: 0.0485 - mean\_s  
Epoch 3863/5000  
103/103 [=====] - 0s 19us/step - loss: 374.8051 - acc: 0.0485 - mean\_s  
Epoch 3864/5000  
103/103 [=====] - 0s 39us/step - loss: 374.5967 - acc: 0.0485 - mean\_s  
Epoch 3865/5000  
103/103 [=====] - 0s 19us/step - loss: 374.3736 - acc: 0.0583 - mean\_s

Epoch 3866/5000  
103/103 [=====] - 0s 19us/step - loss: 374.1753 - acc: 0.0583 - mean\_s  
Epoch 3867/5000  
103/103 [=====] - 0s 19us/step - loss: 373.9658 - acc: 0.0583 - mean\_s  
Epoch 3868/5000  
103/103 [=====] - 0s 29us/step - loss: 373.7422 - acc: 0.0583 - mean\_s  
Epoch 3869/5000  
103/103 [=====] - 0s 19us/step - loss: 373.5356 - acc: 0.0583 - mean\_s  
Epoch 3870/5000  
103/103 [=====] - 0s 29us/step - loss: 373.3317 - acc: 0.0583 - mean\_s  
Epoch 3871/5000  
103/103 [=====] - 0s 29us/step - loss: 373.1117 - acc: 0.0583 - mean\_s  
Epoch 3872/5000  
103/103 [=====] - 0s 29us/step - loss: 372.9137 - acc: 0.0583 - mean\_s  
Epoch 3873/5000  
103/103 [=====] - 0s 19us/step - loss: 372.6992 - acc: 0.0583 - mean\_s  
Epoch 3874/5000  
103/103 [=====] - 0s 19us/step - loss: 372.4870 - acc: 0.0583 - mean\_s  
Epoch 3875/5000  
103/103 [=====] - 0s 19us/step - loss: 372.2872 - acc: 0.0583 - mean\_s  
Epoch 3876/5000  
103/103 [=====] - 0s 19us/step - loss: 372.0899 - acc: 0.0583 - mean\_s  
Epoch 3877/5000  
103/103 [=====] - 0s 19us/step - loss: 371.8568 - acc: 0.0583 - mean\_s  
Epoch 3878/5000  
103/103 [=====] - 0s 19us/step - loss: 371.6719 - acc: 0.0583 - mean\_s  
Epoch 3879/5000  
103/103 [=====] - 0s 19us/step - loss: 371.4746 - acc: 0.0583 - mean\_s  
Epoch 3880/5000  
103/103 [=====] - 0s 29us/step - loss: 371.2535 - acc: 0.0485 - mean\_s  
Epoch 3881/5000  
103/103 [=====] - 0s 29us/step - loss: 371.0650 - acc: 0.0388 - mean\_s  
Epoch 3882/5000  
103/103 [=====] - 0s 29us/step - loss: 370.8945 - acc: 0.0388 - mean\_s  
Epoch 3883/5000  
103/103 [=====] - 0s 19us/step - loss: 370.6993 - acc: 0.0388 - mean\_s  
Epoch 3884/5000  
103/103 [=====] - 0s 19us/step - loss: 370.4892 - acc: 0.0388 - mean\_s  
Epoch 3885/5000  
103/103 [=====] - 0s 29us/step - loss: 370.2929 - acc: 0.0388 - mean\_s  
Epoch 3886/5000  
103/103 [=====] - 0s 29us/step - loss: 370.1000 - acc: 0.0388 - mean\_s  
Epoch 3887/5000  
103/103 [=====] - 0s 19us/step - loss: 369.9561 - acc: 0.0388 - mean\_s  
Epoch 3888/5000  
103/103 [=====] - 0s 19us/step - loss: 369.7168 - acc: 0.0583 - mean\_s  
Epoch 3889/5000  
103/103 [=====] - 0s 29us/step - loss: 369.5080 - acc: 0.0583 - mean\_s



Epoch 3890/5000  
103/103 [=====] - 0s 29us/step - loss: 369.2913 - acc: 0.0583 - mean\_

Epoch 3891/5000  
103/103 [=====] - 0s 29us/step - loss: 369.1179 - acc: 0.0583 - mean\_

Epoch 3892/5000  
103/103 [=====] - 0s 29us/step - loss: 368.9061 - acc: 0.0583 - mean\_

Epoch 3893/5000  
103/103 [=====] - 0s 29us/step - loss: 368.7011 - acc: 0.0583 - mean\_

Epoch 3894/5000  
103/103 [=====] - 0s 19us/step - loss: 368.4933 - acc: 0.0583 - mean\_

Epoch 3895/5000  
103/103 [=====] - 0s 19us/step - loss: 368.3192 - acc: 0.0583 - mean\_

Epoch 3896/5000  
103/103 [=====] - 0s 19us/step - loss: 368.1327 - acc: 0.0583 - mean\_

Epoch 3897/5000  
103/103 [=====] - 0s 29us/step - loss: 367.9254 - acc: 0.0485 - mean\_

Epoch 3898/5000  
103/103 [=====] - 0s 29us/step - loss: 367.7134 - acc: 0.0388 - mean\_

Epoch 3899/5000  
103/103 [=====] - 0s 29us/step - loss: 367.4879 - acc: 0.0485 - mean\_

Epoch 3900/5000  
103/103 [=====] - 0s 19us/step - loss: 367.3024 - acc: 0.0485 - mean\_

Epoch 3901/5000  
103/103 [=====] - 0s 29us/step - loss: 367.1030 - acc: 0.0485 - mean\_

Epoch 3902/5000  
103/103 [=====] - 0s 29us/step - loss: 366.8932 - acc: 0.0583 - mean\_

Epoch 3903/5000  
103/103 [=====] - 0s 29us/step - loss: 366.6912 - acc: 0.0485 - mean\_

Epoch 3904/5000  
103/103 [=====] - 0s 19us/step - loss: 366.4823 - acc: 0.0485 - mean\_

Epoch 3905/5000  
103/103 [=====] - 0s 29us/step - loss: 366.2893 - acc: 0.0485 - mean\_

Epoch 3906/5000  
103/103 [=====] - 0s 29us/step - loss: 366.1054 - acc: 0.0485 - mean\_

Epoch 3907/5000  
103/103 [=====] - 0s 29us/step - loss: 365.8738 - acc: 0.0485 - mean\_

Epoch 3908/5000  
103/103 [=====] - 0s 29us/step - loss: 365.6836 - acc: 0.0485 - mean\_

Epoch 3909/5000  
103/103 [=====] - 0s 29us/step - loss: 365.4747 - acc: 0.0485 - mean\_

Epoch 3910/5000  
103/103 [=====] - 0s 29us/step - loss: 365.2961 - acc: 0.0388 - mean\_

Epoch 3911/5000  
103/103 [=====] - 0s 19us/step - loss: 365.1036 - acc: 0.0388 - mean\_

Epoch 3912/5000  
103/103 [=====] - 0s 19us/step - loss: 364.8874 - acc: 0.0388 - mean\_

Epoch 3913/5000  
103/103 [=====] - 0s 19us/step - loss: 364.6676 - acc: 0.0388 - mean\_

Epoch 3914/5000  
103/103 [=====] - 0s 29us/step - loss: 364.4986 - acc: 0.0388 - mean\_s  
Epoch 3915/5000  
103/103 [=====] - 0s 29us/step - loss: 364.3149 - acc: 0.0388 - mean\_s  
Epoch 3916/5000  
103/103 [=====] - 0s 29us/step - loss: 364.1295 - acc: 0.0485 - mean\_s  
Epoch 3917/5000  
103/103 [=====] - 0s 29us/step - loss: 363.8984 - acc: 0.0485 - mean\_s  
Epoch 3918/5000  
103/103 [=====] - 0s 19us/step - loss: 363.7012 - acc: 0.0485 - mean\_s  
Epoch 3919/5000  
103/103 [=====] - 0s 29us/step - loss: 363.5279 - acc: 0.0583 - mean\_s  
Epoch 3920/5000  
103/103 [=====] - 0s 29us/step - loss: 363.3333 - acc: 0.0583 - mean\_s  
Epoch 3921/5000  
103/103 [=====] - 0s 29us/step - loss: 363.1288 - acc: 0.0485 - mean\_s  
Epoch 3922/5000  
103/103 [=====] - 0s 29us/step - loss: 362.9161 - acc: 0.0485 - mean\_s  
Epoch 3923/5000  
103/103 [=====] - 0s 19us/step - loss: 362.7383 - acc: 0.0388 - mean\_s  
Epoch 3924/5000  
103/103 [=====] - 0s 39us/step - loss: 362.5508 - acc: 0.0388 - mean\_s  
Epoch 3925/5000  
103/103 [=====] - 0s 29us/step - loss: 362.3514 - acc: 0.0388 - mean\_s  
Epoch 3926/5000  
103/103 [=====] - 0s 29us/step - loss: 362.1273 - acc: 0.0388 - mean\_s  
Epoch 3927/5000  
103/103 [=====] - 0s 19us/step - loss: 361.9049 - acc: 0.0388 - mean\_s  
Epoch 3928/5000  
103/103 [=====] - 0s 19us/step - loss: 361.7458 - acc: 0.0388 - mean\_s  
Epoch 3929/5000  
103/103 [=====] - 0s 29us/step - loss: 361.5557 - acc: 0.0583 - mean\_s  
Epoch 3930/5000  
103/103 [=====] - 0s 29us/step - loss: 361.3645 - acc: 0.0583 - mean\_s  
Epoch 3931/5000  
103/103 [=====] - 0s 29us/step - loss: 361.1351 - acc: 0.0583 - mean\_s  
Epoch 3932/5000  
103/103 [=====] - 0s 29us/step - loss: 360.9162 - acc: 0.0485 - mean\_s  
Epoch 3933/5000  
103/103 [=====] - 0s 19us/step - loss: 360.7284 - acc: 0.0485 - mean\_s  
Epoch 3934/5000  
103/103 [=====] - 0s 19us/step - loss: 360.5305 - acc: 0.0485 - mean\_s  
Epoch 3935/5000  
103/103 [=====] - 0s 29us/step - loss: 360.3203 - acc: 0.0485 - mean\_s  
Epoch 3936/5000  
103/103 [=====] - 0s 29us/step - loss: 360.1371 - acc: 0.0485 - mean\_s  
Epoch 3937/5000  
103/103 [=====] - 0s 29us/step - loss: 359.9368 - acc: 0.0485 - mean\_s

Epoch 3938/5000  
103/103 [=====] - 0s 29us/step - loss: 359.7396 - acc: 0.0485 - mean\_s  
Epoch 3939/5000  
103/103 [=====] - 0s 29us/step - loss: 359.5267 - acc: 0.0485 - mean\_s  
Epoch 3940/5000  
103/103 [=====] - 0s 29us/step - loss: 359.3347 - acc: 0.0485 - mean\_s  
Epoch 3941/5000  
103/103 [=====] - 0s 29us/step - loss: 359.1413 - acc: 0.0485 - mean\_s  
Epoch 3942/5000  
103/103 [=====] - 0s 19us/step - loss: 358.9360 - acc: 0.0485 - mean\_s  
Epoch 3943/5000  
103/103 [=====] - 0s 29us/step - loss: 358.7445 - acc: 0.0485 - mean\_s  
Epoch 3944/5000  
103/103 [=====] - 0s 19us/step - loss: 358.5417 - acc: 0.0485 - mean\_s  
Epoch 3945/5000  
103/103 [=====] - 0s 19us/step - loss: 358.3298 - acc: 0.0485 - mean\_s  
Epoch 3946/5000  
103/103 [=====] - 0s 29us/step - loss: 358.1324 - acc: 0.0485 - mean\_s  
Epoch 3947/5000  
103/103 [=====] - 0s 29us/step - loss: 357.9583 - acc: 0.0388 - mean\_s  
Epoch 3948/5000  
103/103 [=====] - 0s 29us/step - loss: 357.7573 - acc: 0.0388 - mean\_s  
Epoch 3949/5000  
103/103 [=====] - 0s 29us/step - loss: 357.5482 - acc: 0.0388 - mean\_s  
Epoch 3950/5000  
103/103 [=====] - 0s 19us/step - loss: 357.3425 - acc: 0.0388 - mean\_s  
Epoch 3951/5000  
103/103 [=====] - 0s 19us/step - loss: 357.1398 - acc: 0.0388 - mean\_s  
Epoch 3952/5000  
103/103 [=====] - 0s 19us/step - loss: 356.9434 - acc: 0.0388 - mean\_s  
Epoch 3953/5000  
103/103 [=====] - 0s 29us/step - loss: 356.7569 - acc: 0.0388 - mean\_s  
Epoch 3954/5000  
103/103 [=====] - 0s 19us/step - loss: 356.5645 - acc: 0.0388 - mean\_s  
Epoch 3955/5000  
103/103 [=====] - 0s 29us/step - loss: 356.3398 - acc: 0.0388 - mean\_s  
Epoch 3956/5000  
103/103 [=====] - 0s 29us/step - loss: 356.1419 - acc: 0.0388 - mean\_s  
Epoch 3957/5000  
103/103 [=====] - 0s 19us/step - loss: 355.9616 - acc: 0.0388 - mean\_s  
Epoch 3958/5000  
103/103 [=====] - 0s 39us/step - loss: 355.7728 - acc: 0.0388 - mean\_s  
Epoch 3959/5000  
103/103 [=====] - 0s 29us/step - loss: 355.5670 - acc: 0.0388 - mean\_s  
Epoch 3960/5000  
103/103 [=====] - 0s 19us/step - loss: 355.3546 - acc: 0.0388 - mean\_s  
Epoch 3961/5000  
103/103 [=====] - 0s 29us/step - loss: 355.1718 - acc: 0.0388 - mean\_s

Epoch 3962/5000  
103/103 [=====] - 0s 29us/step - loss: 354.9776 - acc: 0.0388 - mean\_s  
Epoch 3963/5000  
103/103 [=====] - 0s 19us/step - loss: 354.7638 - acc: 0.0388 - mean\_s  
Epoch 3964/5000  
103/103 [=====] - 0s 19us/step - loss: 354.5759 - acc: 0.0388 - mean\_s  
Epoch 3965/5000  
103/103 [=====] - 0s 29us/step - loss: 354.3717 - acc: 0.0388 - mean\_s  
Epoch 3966/5000  
103/103 [=====] - 0s 19us/step - loss: 354.1859 - acc: 0.0388 - mean\_s  
Epoch 3967/5000  
103/103 [=====] - 0s 29us/step - loss: 353.9857 - acc: 0.0388 - mean\_s  
Epoch 3968/5000  
103/103 [=====] - 0s 19us/step - loss: 353.8118 - acc: 0.0485 - mean\_s  
Epoch 3969/5000  
103/103 [=====] - 0s 19us/step - loss: 353.6063 - acc: 0.0388 - mean\_s  
Epoch 3970/5000  
103/103 [=====] - 0s 29us/step - loss: 353.4056 - acc: 0.0388 - mean\_s  
Epoch 3971/5000  
103/103 [=====] - 0s 19us/step - loss: 353.2065 - acc: 0.0388 - mean\_s  
Epoch 3972/5000  
103/103 [=====] - 0s 19us/step - loss: 353.0119 - acc: 0.0388 - mean\_s  
Epoch 3973/5000  
103/103 [=====] - 0s 29us/step - loss: 352.8601 - acc: 0.0388 - mean\_s  
Epoch 3974/5000  
103/103 [=====] - 0s 29us/step - loss: 352.6075 - acc: 0.0485 - mean\_s  
Epoch 3975/5000  
103/103 [=====] - 0s 19us/step - loss: 352.4160 - acc: 0.0485 - mean\_s  
Epoch 3976/5000  
103/103 [=====] - 0s 29us/step - loss: 352.2514 - acc: 0.0485 - mean\_s  
Epoch 3977/5000  
103/103 [=====] - 0s 29us/step - loss: 352.0439 - acc: 0.0485 - mean\_s  
Epoch 3978/5000  
103/103 [=====] - 0s 29us/step - loss: 351.8509 - acc: 0.0485 - mean\_s  
Epoch 3979/5000  
103/103 [=====] - 0s 29us/step - loss: 351.6496 - acc: 0.0388 - mean\_s  
Epoch 3980/5000  
103/103 [=====] - 0s 29us/step - loss: 351.4792 - acc: 0.0291 - mean\_s  
Epoch 3981/5000  
103/103 [=====] - 0s 29us/step - loss: 351.2948 - acc: 0.0291 - mean\_s  
Epoch 3982/5000  
103/103 [=====] - 0s 19us/step - loss: 351.0973 - acc: 0.0291 - mean\_s  
Epoch 3983/5000  
103/103 [=====] - 0s 19us/step - loss: 350.9009 - acc: 0.0291 - mean\_s  
Epoch 3984/5000  
103/103 [=====] - 0s 19us/step - loss: 350.7211 - acc: 0.0388 - mean\_s  
Epoch 3985/5000  
103/103 [=====] - 0s 19us/step - loss: 350.5211 - acc: 0.0485 - mean\_s

Epoch 3986/5000  
103/103 [=====] - 0s 19us/step - loss: 350.3314 - acc: 0.0485 - mean\_s  
Epoch 3987/5000  
103/103 [=====] - 0s 19us/step - loss: 350.1347 - acc: 0.0485 - mean\_s  
Epoch 3988/5000  
103/103 [=====] - 0s 19us/step - loss: 349.9253 - acc: 0.0485 - mean\_s  
Epoch 3989/5000  
103/103 [=====] - 0s 29us/step - loss: 349.7629 - acc: 0.0485 - mean\_s  
Epoch 3990/5000  
103/103 [=====] - 0s 19us/step - loss: 349.5647 - acc: 0.0388 - mean\_s  
Epoch 3991/5000  
103/103 [=====] - 0s 19us/step - loss: 349.3843 - acc: 0.0388 - mean\_s  
Epoch 3992/5000  
103/103 [=====] - 0s 19us/step - loss: 349.1686 - acc: 0.0388 - mean\_s  
Epoch 3993/5000  
103/103 [=====] - 0s 29us/step - loss: 349.0033 - acc: 0.0388 - mean\_s  
Epoch 3994/5000  
103/103 [=====] - 0s 29us/step - loss: 348.7801 - acc: 0.0388 - mean\_s  
Epoch 3995/5000  
103/103 [=====] - 0s 29us/step - loss: 348.5833 - acc: 0.0388 - mean\_s  
Epoch 3996/5000  
103/103 [=====] - 0s 29us/step - loss: 348.3997 - acc: 0.0485 - mean\_s  
Epoch 3997/5000  
103/103 [=====] - 0s 19us/step - loss: 348.1972 - acc: 0.0388 - mean\_s  
Epoch 3998/5000  
103/103 [=====] - 0s 19us/step - loss: 348.0119 - acc: 0.0388 - mean\_s  
Epoch 3999/5000  
103/103 [=====] - 0s 19us/step - loss: 347.8445 - acc: 0.0388 - mean\_s  
Epoch 4000/5000  
103/103 [=====] - 0s 29us/step - loss: 347.6491 - acc: 0.0388 - mean\_s  
Epoch 4001/5000  
103/103 [=====] - 0s 29us/step - loss: 347.4790 - acc: 0.0388 - mean\_s  
Epoch 4002/5000  
103/103 [=====] - 0s 19us/step - loss: 347.2654 - acc: 0.0388 - mean\_s  
Epoch 4003/5000  
103/103 [=====] - 0s 19us/step - loss: 347.0837 - acc: 0.0388 - mean\_s  
Epoch 4004/5000  
103/103 [=====] - 0s 19us/step - loss: 346.8982 - acc: 0.0388 - mean\_s  
Epoch 4005/5000  
103/103 [=====] - 0s 19us/step - loss: 346.7023 - acc: 0.0388 - mean\_s  
Epoch 4006/5000  
103/103 [=====] - 0s 29us/step - loss: 346.5190 - acc: 0.0388 - mean\_s  
Epoch 4007/5000  
103/103 [=====] - 0s 19us/step - loss: 346.3499 - acc: 0.0388 - mean\_s  
Epoch 4008/5000  
103/103 [=====] - 0s 19us/step - loss: 346.1597 - acc: 0.0388 - mean\_s  
Epoch 4009/5000  
103/103 [=====] - 0s 29us/step - loss: 345.9606 - acc: 0.0388 - mean\_s

Epoch 4010/5000  
103/103 [=====] - 0s 29us/step - loss: 345.7795 - acc: 0.0485 - mean\_s  
Epoch 4011/5000  
103/103 [=====] - 0s 19us/step - loss: 345.5962 - acc: 0.0485 - mean\_s  
Epoch 4012/5000  
103/103 [=====] - 0s 19us/step - loss: 345.3965 - acc: 0.0485 - mean\_s  
Epoch 4013/5000  
103/103 [=====] - 0s 29us/step - loss: 345.2285 - acc: 0.0485 - mean\_s  
Epoch 4014/5000  
103/103 [=====] - 0s 29us/step - loss: 345.0480 - acc: 0.0388 - mean\_s  
Epoch 4015/5000  
103/103 [=====] - 0s 29us/step - loss: 344.8645 - acc: 0.0388 - mean\_s  
Epoch 4016/5000  
103/103 [=====] - 0s 19us/step - loss: 344.6892 - acc: 0.0485 - mean\_s  
Epoch 4017/5000  
103/103 [=====] - 0s 19us/step - loss: 344.5113 - acc: 0.0485 - mean\_s  
Epoch 4018/5000  
103/103 [=====] - 0s 19us/step - loss: 344.3300 - acc: 0.0583 - mean\_s  
Epoch 4019/5000  
103/103 [=====] - 0s 19us/step - loss: 344.1492 - acc: 0.0583 - mean\_s  
Epoch 4020/5000  
103/103 [=====] - 0s 39us/step - loss: 343.9734 - acc: 0.0583 - mean\_s  
Epoch 4021/5000  
103/103 [=====] - 0s 29us/step - loss: 343.7643 - acc: 0.0485 - mean\_s  
Epoch 4022/5000  
103/103 [=====] - 0s 29us/step - loss: 343.5515 - acc: 0.0485 - mean\_s  
Epoch 4023/5000  
103/103 [=====] - 0s 29us/step - loss: 343.3847 - acc: 0.0485 - mean\_s  
Epoch 4024/5000  
103/103 [=====] - 0s 29us/step - loss: 343.2019 - acc: 0.0485 - mean\_s  
Epoch 4025/5000  
103/103 [=====] - 0s 29us/step - loss: 343.0449 - acc: 0.0485 - mean\_s  
Epoch 4026/5000  
103/103 [=====] - 0s 29us/step - loss: 342.8256 - acc: 0.0485 - mean\_s  
Epoch 4027/5000  
103/103 [=====] - 0s 19us/step - loss: 342.6615 - acc: 0.0485 - mean\_s  
Epoch 4028/5000  
103/103 [=====] - 0s 19us/step - loss: 342.4944 - acc: 0.0485 - mean\_s  
Epoch 4029/5000  
103/103 [=====] - 0s 19us/step - loss: 342.3139 - acc: 0.0583 - mean\_s  
Epoch 4030/5000  
103/103 [=====] - 0s 29us/step - loss: 342.1306 - acc: 0.0583 - mean\_s  
Epoch 4031/5000  
103/103 [=====] - 0s 19us/step - loss: 341.9241 - acc: 0.0583 - mean\_s  
Epoch 4032/5000  
103/103 [=====] - 0s 29us/step - loss: 341.7417 - acc: 0.0680 - mean\_s  
Epoch 4033/5000  
103/103 [=====] - 0s 19us/step - loss: 341.5747 - acc: 0.0583 - mean\_s

Epoch 4034/5000  
103/103 [=====] - 0s 19us/step - loss: 341.3953 - acc: 0.0583 - mean\_s  
Epoch 4035/5000  
103/103 [=====] - 0s 29us/step - loss: 341.2032 - acc: 0.0583 - mean\_s  
Epoch 4036/5000  
103/103 [=====] - 0s 29us/step - loss: 341.0223 - acc: 0.0583 - mean\_s  
Epoch 4037/5000  
103/103 [=====] - 0s 29us/step - loss: 340.8624 - acc: 0.0583 - mean\_s  
Epoch 4038/5000  
103/103 [=====] - 0s 29us/step - loss: 340.6868 - acc: 0.0583 - mean\_s  
Epoch 4039/5000  
103/103 [=====] - 0s 19us/step - loss: 340.4872 - acc: 0.0583 - mean\_s  
Epoch 4040/5000  
103/103 [=====] - 0s 29us/step - loss: 340.3261 - acc: 0.0583 - mean\_s  
Epoch 4041/5000  
103/103 [=====] - 0s 19us/step - loss: 340.1564 - acc: 0.0583 - mean\_s  
Epoch 4042/5000  
103/103 [=====] - 0s 19us/step - loss: 339.9669 - acc: 0.0583 - mean\_s  
Epoch 4043/5000  
103/103 [=====] - 0s 19us/step - loss: 339.7887 - acc: 0.0583 - mean\_s  
Epoch 4044/5000  
103/103 [=====] - 0s 19us/step - loss: 339.6286 - acc: 0.0583 - mean\_s  
Epoch 4045/5000  
103/103 [=====] - 0s 29us/step - loss: 339.4212 - acc: 0.0583 - mean\_s  
Epoch 4046/5000  
103/103 [=====] - 0s 29us/step - loss: 339.2659 - acc: 0.0583 - mean\_s  
Epoch 4047/5000  
103/103 [=====] - 0s 19us/step - loss: 339.1014 - acc: 0.0680 - mean\_s  
Epoch 4048/5000  
103/103 [=====] - 0s 19us/step - loss: 338.8936 - acc: 0.0680 - mean\_s  
Epoch 4049/5000  
103/103 [=====] - 0s 29us/step - loss: 338.6837 - acc: 0.0583 - mean\_s  
Epoch 4050/5000  
103/103 [=====] - 0s 29us/step - loss: 338.5402 - acc: 0.0583 - mean\_s  
Epoch 4051/5000  
103/103 [=====] - 0s 19us/step - loss: 338.3586 - acc: 0.0583 - mean\_s  
Epoch 4052/5000  
103/103 [=====] - 0s 29us/step - loss: 338.1579 - acc: 0.0583 - mean\_s  
Epoch 4053/5000  
103/103 [=====] - 0s 29us/step - loss: 337.9896 - acc: 0.0583 - mean\_s  
Epoch 4054/5000  
103/103 [=====] - 0s 29us/step - loss: 337.8222 - acc: 0.0583 - mean\_s  
Epoch 4055/5000  
103/103 [=====] - 0s 29us/step - loss: 337.6284 - acc: 0.0583 - mean\_s  
Epoch 4056/5000  
103/103 [=====] - 0s 29us/step - loss: 337.4293 - acc: 0.0485 - mean\_s  
Epoch 4057/5000  
103/103 [=====] - 0s 19us/step - loss: 337.2915 - acc: 0.0485 - mean\_s

Epoch 4058/5000  
103/103 [=====] - 0s 19us/step - loss: 337.1439 - acc: 0.0388 - mean\_s  
Epoch 4059/5000  
103/103 [=====] - 0s 29us/step - loss: 336.9507 - acc: 0.0485 - mean\_s  
Epoch 4060/5000  
103/103 [=====] - 0s 19us/step - loss: 336.7644 - acc: 0.0583 - mean\_s  
Epoch 4061/5000  
103/103 [=====] - 0s 19us/step - loss: 336.5793 - acc: 0.0485 - mean\_s  
Epoch 4062/5000  
103/103 [=====] - 0s 29us/step - loss: 336.4056 - acc: 0.0485 - mean\_s  
Epoch 4063/5000  
103/103 [=====] - 0s 19us/step - loss: 336.2434 - acc: 0.0485 - mean\_s  
Epoch 4064/5000  
103/103 [=====] - 0s 19us/step - loss: 336.0305 - acc: 0.0583 - mean\_s  
Epoch 4065/5000  
103/103 [=====] - 0s 19us/step - loss: 335.8794 - acc: 0.0583 - mean\_s  
Epoch 4066/5000  
103/103 [=====] - 0s 29us/step - loss: 335.6881 - acc: 0.0583 - mean\_s  
Epoch 4067/5000  
103/103 [=====] - 0s 29us/step - loss: 335.5220 - acc: 0.0583 - mean\_s  
Epoch 4068/5000  
103/103 [=====] - 0s 29us/step - loss: 335.3427 - acc: 0.0583 - mean\_s  
Epoch 4069/5000  
103/103 [=====] - 0s 19us/step - loss: 335.1761 - acc: 0.0583 - mean\_s  
Epoch 4070/5000  
103/103 [=====] - 0s 19us/step - loss: 335.0091 - acc: 0.0583 - mean\_s  
Epoch 4071/5000  
103/103 [=====] - 0s 19us/step - loss: 334.8282 - acc: 0.0583 - mean\_s  
Epoch 4072/5000  
103/103 [=====] - 0s 29us/step - loss: 334.6464 - acc: 0.0583 - mean\_s  
Epoch 4073/5000  
103/103 [=====] - 0s 19us/step - loss: 334.4659 - acc: 0.0485 - mean\_s  
Epoch 4074/5000  
103/103 [=====] - 0s 19us/step - loss: 334.2835 - acc: 0.0485 - mean\_s  
Epoch 4075/5000  
103/103 [=====] - 0s 19us/step - loss: 334.1340 - acc: 0.0485 - mean\_s  
Epoch 4076/5000  
103/103 [=====] - 0s 29us/step - loss: 333.9434 - acc: 0.0485 - mean\_s  
Epoch 4077/5000  
103/103 [=====] - 0s 29us/step - loss: 333.7781 - acc: 0.0485 - mean\_s  
Epoch 4078/5000  
103/103 [=====] - 0s 29us/step - loss: 333.5863 - acc: 0.0485 - mean\_s  
Epoch 4079/5000  
103/103 [=====] - 0s 19us/step - loss: 333.4398 - acc: 0.0485 - mean\_s  
Epoch 4080/5000  
103/103 [=====] - 0s 29us/step - loss: 333.2551 - acc: 0.0485 - mean\_s  
Epoch 4081/5000  
103/103 [=====] - 0s 19us/step - loss: 333.0795 - acc: 0.0485 - mean\_s



Epoch 4082/5000  
103/103 [=====] - 0s 29us/step - loss: 332.9135 - acc: 0.0485 - mean\_s  
Epoch 4083/5000  
103/103 [=====] - 0s 29us/step - loss: 332.7655 - acc: 0.0485 - mean\_s  
Epoch 4084/5000  
103/103 [=====] - 0s 19us/step - loss: 332.5791 - acc: 0.0485 - mean\_s  
Epoch 4085/5000  
103/103 [=====] - 0s 19us/step - loss: 332.4130 - acc: 0.0485 - mean\_s  
Epoch 4086/5000  
103/103 [=====] - 0s 19us/step - loss: 332.2455 - acc: 0.0485 - mean\_s  
Epoch 4087/5000  
103/103 [=====] - 0s 29us/step - loss: 332.0730 - acc: 0.0485 - mean\_s  
Epoch 4088/5000  
103/103 [=====] - 0s 29us/step - loss: 331.8793 - acc: 0.0485 - mean\_s  
Epoch 4089/5000  
103/103 [=====] - 0s 29us/step - loss: 331.7129 - acc: 0.0485 - mean\_s  
Epoch 4090/5000  
103/103 [=====] - 0s 29us/step - loss: 331.5569 - acc: 0.0485 - mean\_s  
Epoch 4091/5000  
103/103 [=====] - 0s 29us/step - loss: 331.3786 - acc: 0.0485 - mean\_s  
Epoch 4092/5000  
103/103 [=====] - 0s 29us/step - loss: 331.1859 - acc: 0.0485 - mean\_s  
Epoch 4093/5000  
103/103 [=====] - 0s 29us/step - loss: 331.0279 - acc: 0.0485 - mean\_s  
Epoch 4094/5000  
103/103 [=====] - 0s 19us/step - loss: 330.8674 - acc: 0.0485 - mean\_s  
Epoch 4095/5000  
103/103 [=====] - 0s 19us/step - loss: 330.6990 - acc: 0.0485 - mean\_s  
Epoch 4096/5000  
103/103 [=====] - 0s 29us/step - loss: 330.5235 - acc: 0.0485 - mean\_s  
Epoch 4097/5000  
103/103 [=====] - 0s 19us/step - loss: 330.3489 - acc: 0.0485 - mean\_s  
Epoch 4098/5000  
103/103 [=====] - 0s 19us/step - loss: 330.1623 - acc: 0.0485 - mean\_s  
Epoch 4099/5000  
103/103 [=====] - 0s 29us/step - loss: 330.0081 - acc: 0.0485 - mean\_s  
Epoch 4100/5000  
103/103 [=====] - 0s 19us/step - loss: 329.8575 - acc: 0.0485 - mean\_s  
Epoch 4101/5000  
103/103 [=====] - 0s 39us/step - loss: 329.6577 - acc: 0.0485 - mean\_s  
Epoch 4102/5000  
103/103 [=====] - 0s 19us/step - loss: 329.4920 - acc: 0.0485 - mean\_s  
Epoch 4103/5000  
103/103 [=====] - 0s 29us/step - loss: 329.3303 - acc: 0.0485 - mean\_s  
Epoch 4104/5000  
103/103 [=====] - 0s 29us/step - loss: 329.1653 - acc: 0.0485 - mean\_s  
Epoch 4105/5000  
103/103 [=====] - 0s 29us/step - loss: 328.9785 - acc: 0.0485 - mean\_s

Epoch 4106/5000  
103/103 [=====] - 0s 19us/step - loss: 328.8073 - acc: 0.0485 - mean\_s  
Epoch 4107/5000  
103/103 [=====] - 0s 19us/step - loss: 328.6348 - acc: 0.0485 - mean\_s  
Epoch 4108/5000  
103/103 [=====] - 0s 19us/step - loss: 328.4537 - acc: 0.0485 - mean\_s  
Epoch 4109/5000  
103/103 [=====] - 0s 19us/step - loss: 328.2784 - acc: 0.0485 - mean\_s  
Epoch 4110/5000  
103/103 [=====] - 0s 29us/step - loss: 328.1047 - acc: 0.0485 - mean\_s  
Epoch 4111/5000  
103/103 [=====] - 0s 19us/step - loss: 327.9664 - acc: 0.0485 - mean\_s  
Epoch 4112/5000  
103/103 [=====] - 0s 19us/step - loss: 327.7884 - acc: 0.0583 - mean\_s  
Epoch 4113/5000  
103/103 [=====] - 0s 29us/step - loss: 327.6397 - acc: 0.0583 - mean\_s  
Epoch 4114/5000  
103/103 [=====] - 0s 29us/step - loss: 327.4757 - acc: 0.0583 - mean\_s  
Epoch 4115/5000  
103/103 [=====] - 0s 19us/step - loss: 327.2937 - acc: 0.0583 - mean\_s  
Epoch 4116/5000  
103/103 [=====] - 0s 29us/step - loss: 327.1271 - acc: 0.0485 - mean\_s  
Epoch 4117/5000  
103/103 [=====] - 0s 29us/step - loss: 326.9731 - acc: 0.0485 - mean\_s  
Epoch 4118/5000  
103/103 [=====] - 0s 29us/step - loss: 326.7867 - acc: 0.0485 - mean\_s  
Epoch 4119/5000  
103/103 [=====] - 0s 19us/step - loss: 326.6180 - acc: 0.0485 - mean\_s  
Epoch 4120/5000  
103/103 [=====] - 0s 29us/step - loss: 326.4787 - acc: 0.0485 - mean\_s  
Epoch 4121/5000  
103/103 [=====] - 0s 29us/step - loss: 326.3145 - acc: 0.0485 - mean\_s  
Epoch 4122/5000  
103/103 [=====] - 0s 29us/step - loss: 326.1339 - acc: 0.0485 - mean\_s  
Epoch 4123/5000  
103/103 [=====] - 0s 19us/step - loss: 325.9735 - acc: 0.0485 - mean\_s  
Epoch 4124/5000  
103/103 [=====] - 0s 19us/step - loss: 325.7979 - acc: 0.0485 - mean\_s  
Epoch 4125/5000  
103/103 [=====] - 0s 29us/step - loss: 325.6457 - acc: 0.0485 - mean\_s  
Epoch 4126/5000  
103/103 [=====] - 0s 29us/step - loss: 325.4677 - acc: 0.0583 - mean\_s  
Epoch 4127/5000  
103/103 [=====] - 0s 29us/step - loss: 325.3091 - acc: 0.0680 - mean\_s  
Epoch 4128/5000  
103/103 [=====] - 0s 19us/step - loss: 325.1464 - acc: 0.0680 - mean\_s  
Epoch 4129/5000  
103/103 [=====] - 0s 19us/step - loss: 324.9756 - acc: 0.0680 - mean\_s

Epoch 4130/5000  
103/103 [=====] - 0s 19us/step - loss: 324.7988 - acc: 0.0583 - mean\_s  
Epoch 4131/5000  
103/103 [=====] - 0s 19us/step - loss: 324.6231 - acc: 0.0680 - mean\_s  
Epoch 4132/5000  
103/103 [=====] - 0s 29us/step - loss: 324.4727 - acc: 0.0777 - mean\_s  
Epoch 4133/5000  
103/103 [=====] - 0s 19us/step - loss: 324.3128 - acc: 0.0874 - mean\_s  
Epoch 4134/5000  
103/103 [=====] - 0s 19us/step - loss: 324.1161 - acc: 0.0777 - mean\_s  
Epoch 4135/5000  
103/103 [=====] - 0s 29us/step - loss: 323.9430 - acc: 0.0874 - mean\_s  
Epoch 4136/5000  
103/103 [=====] - 0s 29us/step - loss: 323.7892 - acc: 0.0874 - mean\_s  
Epoch 4137/5000  
103/103 [=====] - 0s 19us/step - loss: 323.6187 - acc: 0.0874 - mean\_s  
Epoch 4138/5000  
103/103 [=====] - 0s 19us/step - loss: 323.4538 - acc: 0.0874 - mean\_s  
Epoch 4139/5000  
103/103 [=====] - 0s 29us/step - loss: 323.2802 - acc: 0.0874 - mean\_s  
Epoch 4140/5000  
103/103 [=====] - 0s 39us/step - loss: 323.1025 - acc: 0.0874 - mean\_s  
Epoch 4141/5000  
103/103 [=====] - 0s 29us/step - loss: 322.9500 - acc: 0.0874 - mean\_s  
Epoch 4142/5000  
103/103 [=====] - 0s 19us/step - loss: 322.7783 - acc: 0.0874 - mean\_s  
Epoch 4143/5000  
103/103 [=====] - 0s 29us/step - loss: 322.6220 - acc: 0.0777 - mean\_s  
Epoch 4144/5000  
103/103 [=====] - 0s 19us/step - loss: 322.4489 - acc: 0.0777 - mean\_s  
Epoch 4145/5000  
103/103 [=====] - 0s 19us/step - loss: 322.2659 - acc: 0.0874 - mean\_s  
Epoch 4146/5000  
103/103 [=====] - 0s 19us/step - loss: 322.1480 - acc: 0.0874 - mean\_s  
Epoch 4147/5000  
103/103 [=====] - 0s 19us/step - loss: 321.9709 - acc: 0.0777 - mean\_s  
Epoch 4148/5000  
103/103 [=====] - 0s 19us/step - loss: 321.7953 - acc: 0.0777 - mean\_s  
Epoch 4149/5000  
103/103 [=====] - 0s 29us/step - loss: 321.6176 - acc: 0.0777 - mean\_s  
Epoch 4150/5000  
103/103 [=====] - 0s 29us/step - loss: 321.4319 - acc: 0.0874 - mean\_s  
Epoch 4151/5000  
103/103 [=====] - 0s 19us/step - loss: 321.2488 - acc: 0.0874 - mean\_s  
Epoch 4152/5000  
103/103 [=====] - 0s 29us/step - loss: 321.0869 - acc: 0.0777 - mean\_s  
Epoch 4153/5000  
103/103 [=====] - 0s 29us/step - loss: 320.9008 - acc: 0.0777 - mean\_s

Epoch 4154/5000  
103/103 [=====] - 0s 29us/step - loss: 320.7388 - acc: 0.0680 - mean\_s  
Epoch 4155/5000  
103/103 [=====] - 0s 19us/step - loss: 320.5594 - acc: 0.0583 - mean\_s  
Epoch 4156/5000  
103/103 [=====] - 0s 29us/step - loss: 320.3803 - acc: 0.0583 - mean\_s  
Epoch 4157/5000  
103/103 [=====] - 0s 19us/step - loss: 320.2158 - acc: 0.0485 - mean\_s  
Epoch 4158/5000  
103/103 [=====] - 0s 19us/step - loss: 320.0510 - acc: 0.0583 - mean\_s  
Epoch 4159/5000  
103/103 [=====] - 0s 19us/step - loss: 319.8636 - acc: 0.0485 - mean\_s  
Epoch 4160/5000  
103/103 [=====] - 0s 19us/step - loss: 319.7158 - acc: 0.0583 - mean\_s  
Epoch 4161/5000  
103/103 [=====] - 0s 19us/step - loss: 319.5298 - acc: 0.0388 - mean\_s  
Epoch 4162/5000  
103/103 [=====] - 0s 29us/step - loss: 319.3508 - acc: 0.0291 - mean\_s  
Epoch 4163/5000  
103/103 [=====] - 0s 19us/step - loss: 319.1750 - acc: 0.0388 - mean\_s  
Epoch 4164/5000  
103/103 [=====] - 0s 19us/step - loss: 318.9354 - acc: 0.0388 - mean\_s  
Epoch 4165/5000  
103/103 [=====] - 0s 19us/step - loss: 318.6528 - acc: 0.0583 - mean\_s  
Epoch 4166/5000  
103/103 [=====] - 0s 29us/step - loss: 318.3400 - acc: 0.0485 - mean\_s  
Epoch 4167/5000  
103/103 [=====] - 0s 19us/step - loss: 318.0211 - acc: 0.0485 - mean\_s  
Epoch 4168/5000  
103/103 [=====] - 0s 29us/step - loss: 317.6486 - acc: 0.0485 - mean\_s  
Epoch 4169/5000  
103/103 [=====] - 0s 29us/step - loss: 317.2619 - acc: 0.0485 - mean\_s  
Epoch 4170/5000  
103/103 [=====] - 0s 19us/step - loss: 316.9168 - acc: 0.0485 - mean\_s  
Epoch 4171/5000  
103/103 [=====] - 0s 19us/step - loss: 316.5234 - acc: 0.0485 - mean\_s  
Epoch 4172/5000  
103/103 [=====] - 0s 29us/step - loss: 316.1003 - acc: 0.0583 - mean\_s  
Epoch 4173/5000  
103/103 [=====] - 0s 29us/step - loss: 315.7081 - acc: 0.0583 - mean\_s  
Epoch 4174/5000  
103/103 [=====] - 0s 19us/step - loss: 315.3035 - acc: 0.0583 - mean\_s  
Epoch 4175/5000  
103/103 [=====] - 0s 19us/step - loss: 314.9151 - acc: 0.0583 - mean\_s  
Epoch 4176/5000  
103/103 [=====] - 0s 19us/step - loss: 314.4467 - acc: 0.0583 - mean\_s  
Epoch 4177/5000  
103/103 [=====] - 0s 19us/step - loss: 313.9885 - acc: 0.0583 - mean\_s

Epoch 4178/5000  
103/103 [=====] - 0s 29us/step - loss: 313.5301 - acc: 0.0583 - mean\_

Epoch 4179/5000  
103/103 [=====] - 0s 29us/step - loss: 313.1146 - acc: 0.0583 - mean\_

Epoch 4180/5000  
103/103 [=====] - 0s 29us/step - loss: 312.6746 - acc: 0.0485 - mean\_

Epoch 4181/5000  
103/103 [=====] - 0s 29us/step - loss: 312.2521 - acc: 0.0485 - mean\_

Epoch 4182/5000  
103/103 [=====] - 0s 29us/step - loss: 311.8062 - acc: 0.0485 - mean\_

Epoch 4183/5000  
103/103 [=====] - 0s 19us/step - loss: 311.3822 - acc: 0.0485 - mean\_

Epoch 4184/5000  
103/103 [=====] - 0s 19us/step - loss: 310.9067 - acc: 0.0485 - mean\_

Epoch 4185/5000  
103/103 [=====] - 0s 29us/step - loss: 310.4802 - acc: 0.0485 - mean\_

Epoch 4186/5000  
103/103 [=====] - 0s 39us/step - loss: 310.0472 - acc: 0.0485 - mean\_

Epoch 4187/5000  
103/103 [=====] - 0s 19us/step - loss: 309.6087 - acc: 0.0485 - mean\_

Epoch 4188/5000  
103/103 [=====] - 0s 19us/step - loss: 309.1540 - acc: 0.0485 - mean\_

Epoch 4189/5000  
103/103 [=====] - 0s 19us/step - loss: 308.7478 - acc: 0.0485 - mean\_

Epoch 4190/5000  
103/103 [=====] - 0s 19us/step - loss: 308.3190 - acc: 0.0485 - mean\_

Epoch 4191/5000  
103/103 [=====] - 0s 29us/step - loss: 307.8885 - acc: 0.0388 - mean\_

Epoch 4192/5000  
103/103 [=====] - 0s 29us/step - loss: 307.4149 - acc: 0.0388 - mean\_

Epoch 4193/5000  
103/103 [=====] - 0s 19us/step - loss: 306.9341 - acc: 0.0485 - mean\_

Epoch 4194/5000  
103/103 [=====] - 0s 19us/step - loss: 306.5280 - acc: 0.0485 - mean\_

Epoch 4195/5000  
103/103 [=====] - 0s 29us/step - loss: 306.1036 - acc: 0.0485 - mean\_

Epoch 4196/5000  
103/103 [=====] - 0s 29us/step - loss: 305.6149 - acc: 0.0485 - mean\_

Epoch 4197/5000  
103/103 [=====] - 0s 19us/step - loss: 305.1154 - acc: 0.0485 - mean\_

Epoch 4198/5000  
103/103 [=====] - 0s 19us/step - loss: 304.6970 - acc: 0.0388 - mean\_

Epoch 4199/5000  
103/103 [=====] - 0s 19us/step - loss: 304.2607 - acc: 0.0388 - mean\_

Epoch 4200/5000  
103/103 [=====] - 0s 29us/step - loss: 303.8054 - acc: 0.0388 - mean\_

Epoch 4201/5000  
103/103 [=====] - 0s 19us/step - loss: 303.3321 - acc: 0.0388 - mean\_

Epoch 4202/5000  
103/103 [=====] - 0s 19us/step - loss: 302.8595 - acc: 0.0291 - mean\_s  
Epoch 4203/5000  
103/103 [=====] - 0s 19us/step - loss: 302.4364 - acc: 0.0291 - mean\_s  
Epoch 4204/5000  
103/103 [=====] - 0s 29us/step - loss: 301.9653 - acc: 0.0291 - mean\_s  
Epoch 4205/5000  
103/103 [=====] - 0s 19us/step - loss: 301.5164 - acc: 0.0291 - mean\_s  
Epoch 4206/5000  
103/103 [=====] - 0s 19us/step - loss: 301.0840 - acc: 0.0291 - mean\_s  
Epoch 4207/5000  
103/103 [=====] - 0s 19us/step - loss: 300.6132 - acc: 0.0388 - mean\_s  
Epoch 4208/5000  
103/103 [=====] - 0s 29us/step - loss: 300.1948 - acc: 0.0388 - mean\_s  
Epoch 4209/5000  
103/103 [=====] - 0s 29us/step - loss: 299.7506 - acc: 0.0388 - mean\_s  
Epoch 4210/5000  
103/103 [=====] - 0s 29us/step - loss: 299.3172 - acc: 0.0388 - mean\_s  
Epoch 4211/5000  
103/103 [=====] - 0s 19us/step - loss: 298.8677 - acc: 0.0388 - mean\_s  
Epoch 4212/5000  
103/103 [=====] - 0s 19us/step - loss: 298.4420 - acc: 0.0388 - mean\_s  
Epoch 4213/5000  
103/103 [=====] - 0s 19us/step - loss: 297.9695 - acc: 0.0388 - mean\_s  
Epoch 4214/5000  
103/103 [=====] - 0s 19us/step - loss: 297.5950 - acc: 0.0388 - mean\_s  
Epoch 4215/5000  
103/103 [=====] - 0s 29us/step - loss: 297.1633 - acc: 0.0388 - mean\_s  
Epoch 4216/5000  
103/103 [=====] - 0s 19us/step - loss: 296.7448 - acc: 0.0388 - mean\_s  
Epoch 4217/5000  
103/103 [=====] - 0s 29us/step - loss: 296.2844 - acc: 0.0388 - mean\_s  
Epoch 4218/5000  
103/103 [=====] - 0s 19us/step - loss: 295.8640 - acc: 0.0485 - mean\_s  
Epoch 4219/5000  
103/103 [=====] - 0s 29us/step - loss: 295.4429 - acc: 0.0485 - mean\_s  
Epoch 4220/5000  
103/103 [=====] - 0s 19us/step - loss: 294.9998 - acc: 0.0485 - mean\_s  
Epoch 4221/5000  
103/103 [=====] - 0s 19us/step - loss: 294.5799 - acc: 0.0485 - mean\_s  
Epoch 4222/5000  
103/103 [=====] - 0s 29us/step - loss: 294.1819 - acc: 0.0485 - mean\_s  
Epoch 4223/5000  
103/103 [=====] - 0s 19us/step - loss: 293.7748 - acc: 0.0485 - mean\_s  
Epoch 4224/5000  
103/103 [=====] - 0s 29us/step - loss: 293.3361 - acc: 0.0485 - mean\_s  
Epoch 4225/5000  
103/103 [=====] - 0s 19us/step - loss: 292.9079 - acc: 0.0485 - mean\_s

Epoch 4226/5000  
103/103 [=====] - 0s 29us/step - loss: 292.5088 - acc: 0.0485 - mean\_s  
Epoch 4227/5000  
103/103 [=====] - 0s 29us/step - loss: 292.0888 - acc: 0.0485 - mean\_s  
Epoch 4228/5000  
103/103 [=====] - 0s 19us/step - loss: 291.6536 - acc: 0.0485 - mean\_s  
Epoch 4229/5000  
103/103 [=====] - 0s 29us/step - loss: 291.2722 - acc: 0.0485 - mean\_s  
Epoch 4230/5000  
103/103 [=====] - 0s 19us/step - loss: 290.8435 - acc: 0.0485 - mean\_s  
Epoch 4231/5000  
103/103 [=====] - 0s 29us/step - loss: 290.4665 - acc: 0.0485 - mean\_s  
Epoch 4232/5000  
103/103 [=====] - 0s 29us/step - loss: 290.0114 - acc: 0.0485 - mean\_s  
Epoch 4233/5000  
103/103 [=====] - 0s 29us/step - loss: 289.5690 - acc: 0.0583 - mean\_s  
Epoch 4234/5000  
103/103 [=====] - 0s 29us/step - loss: 289.1768 - acc: 0.0583 - mean\_s  
Epoch 4235/5000  
103/103 [=====] - 0s 29us/step - loss: 288.7716 - acc: 0.0680 - mean\_s  
Epoch 4236/5000  
103/103 [=====] - 0s 19us/step - loss: 288.3623 - acc: 0.0680 - mean\_s  
Epoch 4237/5000  
103/103 [=====] - 0s 39us/step - loss: 287.9630 - acc: 0.0680 - mean\_s  
Epoch 4238/5000  
103/103 [=====] - 0s 19us/step - loss: 287.5348 - acc: 0.0680 - mean\_s  
Epoch 4239/5000  
103/103 [=====] - 0s 19us/step - loss: 287.1716 - acc: 0.0583 - mean\_s  
Epoch 4240/5000  
103/103 [=====] - 0s 19us/step - loss: 286.7737 - acc: 0.0583 - mean\_s  
Epoch 4241/5000  
103/103 [=====] - 0s 29us/step - loss: 286.3677 - acc: 0.0583 - mean\_s  
Epoch 4242/5000  
103/103 [=====] - 0s 29us/step - loss: 285.9497 - acc: 0.0583 - mean\_s  
Epoch 4243/5000  
103/103 [=====] - 0s 19us/step - loss: 285.5437 - acc: 0.0680 - mean\_s  
Epoch 4244/5000  
103/103 [=====] - 0s 19us/step - loss: 285.1750 - acc: 0.0680 - mean\_s  
Epoch 4245/5000  
103/103 [=====] - 0s 29us/step - loss: 284.7713 - acc: 0.0680 - mean\_s  
Epoch 4246/5000  
103/103 [=====] - 0s 29us/step - loss: 284.3844 - acc: 0.0680 - mean\_s  
Epoch 4247/5000  
103/103 [=====] - 0s 29us/step - loss: 283.9906 - acc: 0.0680 - mean\_s  
Epoch 4248/5000  
103/103 [=====] - 0s 29us/step - loss: 283.6295 - acc: 0.0680 - mean\_s  
Epoch 4249/5000  
103/103 [=====] - 0s 29us/step - loss: 283.2229 - acc: 0.0777 - mean\_s

Epoch 4250/5000  
103/103 [=====] - 0s 29us/step - loss: 282.8544 - acc: 0.0680 - mean\_s  
Epoch 4251/5000  
103/103 [=====] - 0s 29us/step - loss: 282.4893 - acc: 0.0680 - mean\_s  
Epoch 4252/5000  
103/103 [=====] - 0s 19us/step - loss: 282.0729 - acc: 0.0680 - mean\_s  
Epoch 4253/5000  
103/103 [=====] - 0s 19us/step - loss: 281.6768 - acc: 0.0680 - mean\_s  
Epoch 4254/5000  
103/103 [=====] - 0s 29us/step - loss: 281.3285 - acc: 0.0680 - mean\_s  
Epoch 4255/5000  
103/103 [=====] - 0s 29us/step - loss: 280.9532 - acc: 0.0680 - mean\_s  
Epoch 4256/5000  
103/103 [=====] - 0s 19us/step - loss: 280.5244 - acc: 0.0680 - mean\_s  
Epoch 4257/5000  
103/103 [=====] - 0s 29us/step - loss: 280.1590 - acc: 0.0583 - mean\_s  
Epoch 4258/5000  
103/103 [=====] - 0s 19us/step - loss: 279.7854 - acc: 0.0680 - mean\_s  
Epoch 4259/5000  
103/103 [=====] - 0s 29us/step - loss: 279.4092 - acc: 0.0680 - mean\_s  
Epoch 4260/5000  
103/103 [=====] - 0s 29us/step - loss: 279.0629 - acc: 0.0680 - mean\_s  
Epoch 4261/5000  
103/103 [=====] - 0s 29us/step - loss: 278.6638 - acc: 0.0680 - mean\_s  
Epoch 4262/5000  
103/103 [=====] - 0s 29us/step - loss: 278.2886 - acc: 0.0680 - mean\_s  
Epoch 4263/5000  
103/103 [=====] - 0s 29us/step - loss: 277.9012 - acc: 0.0680 - mean\_s  
Epoch 4264/5000  
103/103 [=====] - 0s 29us/step - loss: 277.5207 - acc: 0.0680 - mean\_s  
Epoch 4265/5000  
103/103 [=====] - 0s 19us/step - loss: 277.1549 - acc: 0.0583 - mean\_s  
Epoch 4266/5000  
103/103 [=====] - 0s 19us/step - loss: 276.8038 - acc: 0.0583 - mean\_s  
Epoch 4267/5000  
103/103 [=====] - 0s 19us/step - loss: 276.4458 - acc: 0.0583 - mean\_s  
Epoch 4268/5000  
103/103 [=====] - 0s 29us/step - loss: 276.0695 - acc: 0.0583 - mean\_s  
Epoch 4269/5000  
103/103 [=====] - 0s 29us/step - loss: 275.6918 - acc: 0.0583 - mean\_s  
Epoch 4270/5000  
103/103 [=====] - 0s 29us/step - loss: 275.3068 - acc: 0.0583 - mean\_s  
Epoch 4271/5000  
103/103 [=====] - 0s 29us/step - loss: 274.9485 - acc: 0.0583 - mean\_s  
Epoch 4272/5000  
103/103 [=====] - 0s 19us/step - loss: 274.5772 - acc: 0.0680 - mean\_s  
Epoch 4273/5000  
103/103 [=====] - 0s 29us/step - loss: 274.1797 - acc: 0.0680 - mean\_s



Epoch 4274/5000  
103/103 [=====] - 0s 19us/step - loss: 273.7856 - acc: 0.0680 - mean\_s  
Epoch 4275/5000  
103/103 [=====] - 0s 19us/step - loss: 273.4126 - acc: 0.0680 - mean\_s  
Epoch 4276/5000  
103/103 [=====] - 0s 29us/step - loss: 273.0657 - acc: 0.0680 - mean\_s  
Epoch 4277/5000  
103/103 [=====] - 0s 29us/step - loss: 272.6798 - acc: 0.0680 - mean\_s  
Epoch 4278/5000  
103/103 [=====] - 0s 19us/step - loss: 272.3274 - acc: 0.0680 - mean\_s  
Epoch 4279/5000  
103/103 [=====] - 0s 29us/step - loss: 271.9568 - acc: 0.0680 - mean\_s  
Epoch 4280/5000  
103/103 [=====] - 0s 19us/step - loss: 271.5886 - acc: 0.0680 - mean\_s  
Epoch 4281/5000  
103/103 [=====] - 0s 29us/step - loss: 271.2381 - acc: 0.0680 - mean\_s  
Epoch 4282/5000  
103/103 [=====] - 0s 29us/step - loss: 270.8647 - acc: 0.0583 - mean\_s  
Epoch 4283/5000  
103/103 [=====] - 0s 29us/step - loss: 270.5027 - acc: 0.0583 - mean\_s  
Epoch 4284/5000  
103/103 [=====] - 0s 19us/step - loss: 270.1752 - acc: 0.0583 - mean\_s  
Epoch 4285/5000  
103/103 [=====] - 0s 29us/step - loss: 269.8308 - acc: 0.0485 - mean\_s  
Epoch 4286/5000  
103/103 [=====] - 0s 19us/step - loss: 269.4590 - acc: 0.0583 - mean\_s  
Epoch 4287/5000  
103/103 [=====] - 0s 19us/step - loss: 269.1129 - acc: 0.0583 - mean\_s  
Epoch 4288/5000  
103/103 [=====] - 0s 19us/step - loss: 268.7840 - acc: 0.0583 - mean\_s  
Epoch 4289/5000  
103/103 [=====] - 0s 19us/step - loss: 268.4130 - acc: 0.0583 - mean\_s  
Epoch 4290/5000  
103/103 [=====] - 0s 29us/step - loss: 268.0646 - acc: 0.0583 - mean\_s  
Epoch 4291/5000  
103/103 [=====] - 0s 29us/step - loss: 267.7280 - acc: 0.0583 - mean\_s  
Epoch 4292/5000  
103/103 [=====] - 0s 19us/step - loss: 267.3753 - acc: 0.0680 - mean\_s  
Epoch 4293/5000  
103/103 [=====] - 0s 29us/step - loss: 267.0378 - acc: 0.0777 - mean\_s  
Epoch 4294/5000  
103/103 [=====] - 0s 29us/step - loss: 266.6900 - acc: 0.0680 - mean\_s  
Epoch 4295/5000  
103/103 [=====] - 0s 29us/step - loss: 266.3788 - acc: 0.0680 - mean\_s  
Epoch 4296/5000  
103/103 [=====] - 0s 29us/step - loss: 266.0555 - acc: 0.0583 - mean\_s  
Epoch 4297/5000  
103/103 [=====] - 0s 29us/step - loss: 265.7074 - acc: 0.0583 - mean\_s

Epoch 4298/5000  
103/103 [=====] - 0s 19us/step - loss: 265.3727 - acc: 0.0583 - mean\_s  
Epoch 4299/5000  
103/103 [=====] - 0s 19us/step - loss: 265.0132 - acc: 0.0583 - mean\_s  
Epoch 4300/5000  
103/103 [=====] - 0s 29us/step - loss: 264.7473 - acc: 0.0583 - mean\_s  
Epoch 4301/5000  
103/103 [=====] - 0s 29us/step - loss: 264.3977 - acc: 0.0583 - mean\_s  
Epoch 4302/5000  
103/103 [=====] - 0s 19us/step - loss: 264.0655 - acc: 0.0777 - mean\_s  
Epoch 4303/5000  
103/103 [=====] - 0s 19us/step - loss: 263.7286 - acc: 0.0777 - mean\_s  
Epoch 4304/5000  
103/103 [=====] - 0s 19us/step - loss: 263.4265 - acc: 0.0777 - mean\_s  
Epoch 4305/5000  
103/103 [=====] - 0s 39us/step - loss: 263.1210 - acc: 0.0777 - mean\_s  
Epoch 4306/5000  
103/103 [=====] - 0s 29us/step - loss: 262.7866 - acc: 0.0777 - mean\_s  
Epoch 4307/5000  
103/103 [=====] - 0s 19us/step - loss: 262.4445 - acc: 0.0777 - mean\_s  
Epoch 4308/5000  
103/103 [=====] - 0s 29us/step - loss: 262.1022 - acc: 0.0777 - mean\_s  
Epoch 4309/5000  
103/103 [=====] - 0s 19us/step - loss: 261.7952 - acc: 0.0777 - mean\_s  
Epoch 4310/5000  
103/103 [=====] - 0s 29us/step - loss: 261.4462 - acc: 0.0777 - mean\_s  
Epoch 4311/5000  
103/103 [=====] - 0s 29us/step - loss: 261.1236 - acc: 0.0874 - mean\_s  
Epoch 4312/5000  
103/103 [=====] - 0s 19us/step - loss: 260.8478 - acc: 0.0874 - mean\_s  
Epoch 4313/5000  
103/103 [=====] - 0s 19us/step - loss: 260.5043 - acc: 0.0874 - mean\_s  
Epoch 4314/5000  
103/103 [=====] - 0s 19us/step - loss: 260.1946 - acc: 0.0874 - mean\_s  
Epoch 4315/5000  
103/103 [=====] - 0s 19us/step - loss: 259.8679 - acc: 0.0777 - mean\_s  
Epoch 4316/5000  
103/103 [=====] - 0s 29us/step - loss: 259.5609 - acc: 0.0777 - mean\_s  
Epoch 4317/5000  
103/103 [=====] - 0s 29us/step - loss: 259.2470 - acc: 0.0777 - mean\_s  
Epoch 4318/5000  
103/103 [=====] - 0s 29us/step - loss: 258.9352 - acc: 0.0777 - mean\_s  
Epoch 4319/5000  
103/103 [=====] - 0s 19us/step - loss: 258.6064 - acc: 0.0777 - mean\_s  
Epoch 4320/5000  
103/103 [=====] - 0s 19us/step - loss: 258.2621 - acc: 0.0777 - mean\_s  
Epoch 4321/5000  
103/103 [=====] - 0s 29us/step - loss: 257.9606 - acc: 0.0777 - mean\_s

Epoch 4322/5000  
103/103 [=====] - 0s 29us/step - loss: 257.6586 - acc: 0.0777 - mean\_s  
Epoch 4323/5000  
103/103 [=====] - 0s 19us/step - loss: 257.3429 - acc: 0.0777 - mean\_s  
Epoch 4324/5000  
103/103 [=====] - 0s 29us/step - loss: 257.0397 - acc: 0.0777 - mean\_s  
Epoch 4325/5000  
103/103 [=====] - 0s 19us/step - loss: 256.7144 - acc: 0.0777 - mean\_s  
Epoch 4326/5000  
103/103 [=====] - 0s 29us/step - loss: 256.3897 - acc: 0.0777 - mean\_s  
Epoch 4327/5000  
103/103 [=====] - 0s 29us/step - loss: 256.0902 - acc: 0.0777 - mean\_s  
Epoch 4328/5000  
103/103 [=====] - 0s 29us/step - loss: 255.7998 - acc: 0.0777 - mean\_s  
Epoch 4329/5000  
103/103 [=====] - 0s 29us/step - loss: 255.4926 - acc: 0.0680 - mean\_s  
Epoch 4330/5000  
103/103 [=====] - 0s 29us/step - loss: 255.1702 - acc: 0.0680 - mean\_s  
Epoch 4331/5000  
103/103 [=====] - 0s 19us/step - loss: 254.8259 - acc: 0.0680 - mean\_s  
Epoch 4332/5000  
103/103 [=====] - 0s 29us/step - loss: 254.5682 - acc: 0.0680 - mean\_s  
Epoch 4333/5000  
103/103 [=====] - 0s 29us/step - loss: 254.2430 - acc: 0.0680 - mean\_s  
Epoch 4334/5000  
103/103 [=====] - 0s 19us/step - loss: 253.9630 - acc: 0.0680 - mean\_s  
Epoch 4335/5000  
103/103 [=====] - 0s 19us/step - loss: 253.6564 - acc: 0.0680 - mean\_s  
Epoch 4336/5000  
103/103 [=====] - 0s 29us/step - loss: 253.3567 - acc: 0.0680 - mean\_s  
Epoch 4337/5000  
103/103 [=====] - 0s 29us/step - loss: 253.0462 - acc: 0.0680 - mean\_s  
Epoch 4338/5000  
103/103 [=====] - 0s 19us/step - loss: 252.7358 - acc: 0.0680 - mean\_s  
Epoch 4339/5000  
103/103 [=====] - 0s 29us/step - loss: 252.4268 - acc: 0.0680 - mean\_s  
Epoch 4340/5000  
103/103 [=====] - 0s 29us/step - loss: 252.1384 - acc: 0.0680 - mean\_s  
Epoch 4341/5000  
103/103 [=====] - 0s 29us/step - loss: 251.8165 - acc: 0.0777 - mean\_s  
Epoch 4342/5000  
103/103 [=====] - 0s 19us/step - loss: 251.5462 - acc: 0.0777 - mean\_s  
Epoch 4343/5000  
103/103 [=====] - 0s 19us/step - loss: 251.2634 - acc: 0.0777 - mean\_s  
Epoch 4344/5000  
103/103 [=====] - 0s 19us/step - loss: 250.9517 - acc: 0.0680 - mean\_s  
Epoch 4345/5000  
103/103 [=====] - 0s 19us/step - loss: 250.6619 - acc: 0.0680 - mean\_s

Epoch 4346/5000  
103/103 [=====] - 0s 29us/step - loss: 250.3602 - acc: 0.0680 - mean\_s  
Epoch 4347/5000  
103/103 [=====] - 0s 29us/step - loss: 250.0806 - acc: 0.0777 - mean\_s  
Epoch 4348/5000  
103/103 [=====] - 0s 19us/step - loss: 249.7946 - acc: 0.0777 - mean\_s  
Epoch 4349/5000  
103/103 [=====] - 0s 19us/step - loss: 249.4967 - acc: 0.0680 - mean\_s  
Epoch 4350/5000  
103/103 [=====] - 0s 19us/step - loss: 249.1955 - acc: 0.0680 - mean\_s  
Epoch 4351/5000  
103/103 [=====] - 0s 19us/step - loss: 248.9165 - acc: 0.0680 - mean\_s  
Epoch 4352/5000  
103/103 [=====] - 0s 19us/step - loss: 248.6476 - acc: 0.0874 - mean\_s  
Epoch 4353/5000  
103/103 [=====] - 0s 19us/step - loss: 248.3309 - acc: 0.0874 - mean\_s  
Epoch 4354/5000  
103/103 [=====] - 0s 19us/step - loss: 248.0718 - acc: 0.0777 - mean\_s  
Epoch 4355/5000  
103/103 [=====] - 0s 19us/step - loss: 247.7949 - acc: 0.0777 - mean\_s  
Epoch 4356/5000  
103/103 [=====] - 0s 19us/step - loss: 247.4919 - acc: 0.0777 - mean\_s  
Epoch 4357/5000  
103/103 [=====] - 0s 29us/step - loss: 247.1974 - acc: 0.0777 - mean\_s  
Epoch 4358/5000  
103/103 [=====] - 0s 29us/step - loss: 246.9421 - acc: 0.0777 - mean\_s  
Epoch 4359/5000  
103/103 [=====] - 0s 19us/step - loss: 246.6719 - acc: 0.0777 - mean\_s  
Epoch 4360/5000  
103/103 [=====] - 0s 29us/step - loss: 246.3442 - acc: 0.0777 - mean\_s  
Epoch 4361/5000  
103/103 [=====] - 0s 19us/step - loss: 246.0724 - acc: 0.0777 - mean\_s  
Epoch 4362/5000  
103/103 [=====] - 0s 29us/step - loss: 245.8022 - acc: 0.0777 - mean\_s  
Epoch 4363/5000  
103/103 [=====] - 0s 19us/step - loss: 245.5155 - acc: 0.0777 - mean\_s  
Epoch 4364/5000  
103/103 [=====] - 0s 29us/step - loss: 245.2201 - acc: 0.0777 - mean\_s  
Epoch 4365/5000  
103/103 [=====] - 0s 29us/step - loss: 244.9523 - acc: 0.0680 - mean\_s  
Epoch 4366/5000  
103/103 [=====] - 0s 19us/step - loss: 244.6833 - acc: 0.0680 - mean\_s  
Epoch 4367/5000  
103/103 [=====] - 0s 19us/step - loss: 244.3863 - acc: 0.0680 - mean\_s  
Epoch 4368/5000  
103/103 [=====] - 0s 19us/step - loss: 244.0938 - acc: 0.0680 - mean\_s  
Epoch 4369/5000  
103/103 [=====] - 0s 19us/step - loss: 243.8345 - acc: 0.0680 - mean\_s

Epoch 4370/5000  
103/103 [=====] - 0s 29us/step - loss: 243.5506 - acc: 0.0680 - mean\_s  
Epoch 4371/5000  
103/103 [=====] - 0s 29us/step - loss: 243.2899 - acc: 0.0680 - mean\_s  
Epoch 4372/5000  
103/103 [=====] - 0s 29us/step - loss: 242.9923 - acc: 0.0680 - mean\_s  
Epoch 4373/5000  
103/103 [=====] - 0s 39us/step - loss: 242.7334 - acc: 0.0680 - mean\_s  
Epoch 4374/5000  
103/103 [=====] - 0s 29us/step - loss: 242.4815 - acc: 0.0777 - mean\_s  
Epoch 4375/5000  
103/103 [=====] - 0s 29us/step - loss: 242.2124 - acc: 0.0777 - mean\_s  
Epoch 4376/5000  
103/103 [=====] - 0s 29us/step - loss: 241.9205 - acc: 0.0777 - mean\_s  
Epoch 4377/5000  
103/103 [=====] - 0s 29us/step - loss: 241.6655 - acc: 0.0680 - mean\_s  
Epoch 4378/5000  
103/103 [=====] - 0s 19us/step - loss: 241.4208 - acc: 0.0680 - mean\_s  
Epoch 4379/5000  
103/103 [=====] - 0s 19us/step - loss: 241.1696 - acc: 0.0777 - mean\_s  
Epoch 4380/5000  
103/103 [=====] - 0s 39us/step - loss: 240.8966 - acc: 0.0777 - mean\_s  
Epoch 4381/5000  
103/103 [=====] - 0s 29us/step - loss: 240.6284 - acc: 0.0874 - mean\_s  
Epoch 4382/5000  
103/103 [=====] - 0s 19us/step - loss: 240.3817 - acc: 0.0777 - mean\_s  
Epoch 4383/5000  
103/103 [=====] - 0s 19us/step - loss: 240.1041 - acc: 0.0777 - mean\_s  
Epoch 4384/5000  
103/103 [=====] - 0s 19us/step - loss: 239.8835 - acc: 0.0777 - mean\_s  
Epoch 4385/5000  
103/103 [=====] - 0s 29us/step - loss: 239.6146 - acc: 0.0777 - mean\_s  
Epoch 4386/5000  
103/103 [=====] - 0s 19us/step - loss: 239.3475 - acc: 0.0777 - mean\_s  
Epoch 4387/5000  
103/103 [=====] - 0s 29us/step - loss: 239.1009 - acc: 0.0777 - mean\_s  
Epoch 4388/5000  
103/103 [=====] - 0s 39us/step - loss: 238.8478 - acc: 0.0777 - mean\_s  
Epoch 4389/5000  
103/103 [=====] - 0s 19us/step - loss: 238.5701 - acc: 0.0777 - mean\_s  
Epoch 4390/5000  
103/103 [=====] - 0s 29us/step - loss: 238.3451 - acc: 0.0777 - mean\_s  
Epoch 4391/5000  
103/103 [=====] - 0s 29us/step - loss: 238.0717 - acc: 0.0777 - mean\_s  
Epoch 4392/5000  
103/103 [=====] - 0s 19us/step - loss: 237.7958 - acc: 0.0777 - mean\_s  
Epoch 4393/5000  
103/103 [=====] - 0s 19us/step - loss: 237.5967 - acc: 0.0777 - mean\_s

Epoch 4394/5000  
103/103 [=====] - 0s 19us/step - loss: 237.3557 - acc: 0.0777 - mean\_s  
Epoch 4395/5000  
103/103 [=====] - 0s 29us/step - loss: 237.0698 - acc: 0.0777 - mean\_s  
Epoch 4396/5000  
103/103 [=====] - 0s 19us/step - loss: 236.8200 - acc: 0.0777 - mean\_s  
Epoch 4397/5000  
103/103 [=====] - 0s 29us/step - loss: 236.5882 - acc: 0.0874 - mean\_s  
Epoch 4398/5000  
103/103 [=====] - 0s 19us/step - loss: 236.3263 - acc: 0.0874 - mean\_s  
Epoch 4399/5000  
103/103 [=====] - 0s 29us/step - loss: 236.0616 - acc: 0.0874 - mean\_s  
Epoch 4400/5000  
103/103 [=====] - 0s 19us/step - loss: 235.7925 - acc: 0.0874 - mean\_s  
Epoch 4401/5000  
103/103 [=====] - 0s 19us/step - loss: 235.5556 - acc: 0.0874 - mean\_s  
Epoch 4402/5000  
103/103 [=====] - 0s 19us/step - loss: 235.3197 - acc: 0.0874 - mean\_s  
Epoch 4403/5000  
103/103 [=====] - 0s 19us/step - loss: 235.0548 - acc: 0.0874 - mean\_s  
Epoch 4404/5000  
103/103 [=====] - 0s 19us/step - loss: 234.8473 - acc: 0.0874 - mean\_s  
Epoch 4405/5000  
103/103 [=====] - 0s 29us/step - loss: 234.5890 - acc: 0.0874 - mean\_s  
Epoch 4406/5000  
103/103 [=====] - 0s 19us/step - loss: 234.3386 - acc: 0.0874 - mean\_s  
Epoch 4407/5000  
103/103 [=====] - 0s 19us/step - loss: 234.1169 - acc: 0.0874 - mean\_s  
Epoch 4408/5000  
103/103 [=====] - 0s 29us/step - loss: 233.8702 - acc: 0.0874 - mean\_s  
Epoch 4409/5000  
103/103 [=====] - 0s 29us/step - loss: 233.6346 - acc: 0.0874 - mean\_s  
Epoch 4410/5000  
103/103 [=====] - 0s 29us/step - loss: 233.3893 - acc: 0.0874 - mean\_s  
Epoch 4411/5000  
103/103 [=====] - 0s 29us/step - loss: 233.1663 - acc: 0.0874 - mean\_s  
Epoch 4412/5000  
103/103 [=====] - 0s 29us/step - loss: 232.9516 - acc: 0.0874 - mean\_s  
Epoch 4413/5000  
103/103 [=====] - 0s 19us/step - loss: 232.7286 - acc: 0.0874 - mean\_s  
Epoch 4414/5000  
103/103 [=====] - 0s 19us/step - loss: 232.4965 - acc: 0.0777 - mean\_s  
Epoch 4415/5000  
103/103 [=====] - 0s 19us/step - loss: 232.2485 - acc: 0.0777 - mean\_s  
Epoch 4416/5000  
103/103 [=====] - 0s 29us/step - loss: 231.9971 - acc: 0.0777 - mean\_s  
Epoch 4417/5000  
103/103 [=====] - 0s 19us/step - loss: 231.7374 - acc: 0.0777 - mean\_s

Epoch 4418/5000  
103/103 [=====] - 0s 29us/step - loss: 231.4953 - acc: 0.0777 - mean\_s  
Epoch 4419/5000  
103/103 [=====] - 0s 29us/step - loss: 231.2421 - acc: 0.0777 - mean\_s  
Epoch 4420/5000  
103/103 [=====] - 0s 29us/step - loss: 231.0233 - acc: 0.0777 - mean\_s  
Epoch 4421/5000  
103/103 [=====] - 0s 29us/step - loss: 230.8000 - acc: 0.0777 - mean\_s  
Epoch 4422/5000  
103/103 [=====] - 0s 19us/step - loss: 230.5458 - acc: 0.0777 - mean\_s  
Epoch 4423/5000  
103/103 [=====] - 0s 29us/step - loss: 230.2534 - acc: 0.0777 - mean\_s  
Epoch 4424/5000  
103/103 [=====] - 0s 19us/step - loss: 230.0511 - acc: 0.0777 - mean\_s  
Epoch 4425/5000  
103/103 [=====] - 0s 19us/step - loss: 229.8073 - acc: 0.0777 - mean\_s  
Epoch 4426/5000  
103/103 [=====] - 0s 29us/step - loss: 229.5657 - acc: 0.0777 - mean\_s  
Epoch 4427/5000  
103/103 [=====] - 0s 19us/step - loss: 229.2814 - acc: 0.0777 - mean\_s  
Epoch 4428/5000  
103/103 [=====] - 0s 29us/step - loss: 229.0246 - acc: 0.0777 - mean\_s  
Epoch 4429/5000  
103/103 [=====] - 0s 29us/step - loss: 228.8093 - acc: 0.0777 - mean\_s  
Epoch 4430/5000  
103/103 [=====] - 0s 19us/step - loss: 228.5712 - acc: 0.0777 - mean\_s  
Epoch 4431/5000  
103/103 [=====] - 0s 29us/step - loss: 228.3197 - acc: 0.0777 - mean\_s  
Epoch 4432/5000  
103/103 [=====] - 0s 19us/step - loss: 228.0888 - acc: 0.0777 - mean\_s  
Epoch 4433/5000  
103/103 [=====] - 0s 29us/step - loss: 227.8349 - acc: 0.0777 - mean\_s  
Epoch 4434/5000  
103/103 [=====] - 0s 29us/step - loss: 227.5789 - acc: 0.0680 - mean\_s  
Epoch 4435/5000  
103/103 [=====] - 0s 29us/step - loss: 227.3572 - acc: 0.0680 - mean\_s  
Epoch 4436/5000  
103/103 [=====] - 0s 19us/step - loss: 227.1313 - acc: 0.0680 - mean\_s  
Epoch 4437/5000  
103/103 [=====] - 0s 29us/step - loss: 226.8948 - acc: 0.0680 - mean\_s  
Epoch 4438/5000  
103/103 [=====] - 0s 29us/step - loss: 226.6317 - acc: 0.0583 - mean\_s  
Epoch 4439/5000  
103/103 [=====] - 0s 19us/step - loss: 226.3725 - acc: 0.0583 - mean\_s  
Epoch 4440/5000  
103/103 [=====] - 0s 19us/step - loss: 226.1536 - acc: 0.0583 - mean\_s  
Epoch 4441/5000  
103/103 [=====] - 0s 19us/step - loss: 225.9077 - acc: 0.0680 - mean\_s

Epoch 4442/5000  
103/103 [=====] - 0s 19us/step - loss: 225.6670 - acc: 0.0680 - mean\_s  
Epoch 4443/5000  
103/103 [=====] - 0s 19us/step - loss: 225.4194 - acc: 0.0680 - mean\_s  
Epoch 4444/5000  
103/103 [=====] - 0s 19us/step - loss: 225.1839 - acc: 0.0680 - mean\_s  
Epoch 4445/5000  
103/103 [=====] - 0s 29us/step - loss: 224.9564 - acc: 0.0680 - mean\_s  
Epoch 4446/5000  
103/103 [=====] - 0s 29us/step - loss: 224.7214 - acc: 0.0583 - mean\_s  
Epoch 4447/5000  
103/103 [=====] - 0s 29us/step - loss: 224.4639 - acc: 0.0583 - mean\_s  
Epoch 4448/5000  
103/103 [=====] - 0s 19us/step - loss: 224.2248 - acc: 0.0680 - mean\_s  
Epoch 4449/5000  
103/103 [=====] - 0s 19us/step - loss: 223.9880 - acc: 0.0680 - mean\_s  
Epoch 4450/5000  
103/103 [=====] - 0s 19us/step - loss: 223.7525 - acc: 0.0680 - mean\_s  
Epoch 4451/5000  
103/103 [=====] - 0s 19us/step - loss: 223.5259 - acc: 0.0777 - mean\_s  
Epoch 4452/5000  
103/103 [=====] - 0s 19us/step - loss: 223.2865 - acc: 0.0680 - mean\_s  
Epoch 4453/5000  
103/103 [=====] - 0s 29us/step - loss: 223.0564 - acc: 0.0680 - mean\_s  
Epoch 4454/5000  
103/103 [=====] - 0s 29us/step - loss: 222.8320 - acc: 0.0680 - mean\_s  
Epoch 4455/5000  
103/103 [=====] - 0s 29us/step - loss: 222.5905 - acc: 0.0680 - mean\_s  
Epoch 4456/5000  
103/103 [=====] - 0s 29us/step - loss: 222.3776 - acc: 0.0680 - mean\_s  
Epoch 4457/5000  
103/103 [=====] - 0s 29us/step - loss: 222.1403 - acc: 0.0680 - mean\_s  
Epoch 4458/5000  
103/103 [=====] - 0s 19us/step - loss: 221.8948 - acc: 0.0680 - mean\_s  
Epoch 4459/5000  
103/103 [=====] - 0s 29us/step - loss: 221.6793 - acc: 0.0680 - mean\_s  
Epoch 4460/5000  
103/103 [=====] - 0s 19us/step - loss: 221.4470 - acc: 0.0680 - mean\_s  
Epoch 4461/5000  
103/103 [=====] - 0s 29us/step - loss: 221.2243 - acc: 0.0777 - mean\_s  
Epoch 4462/5000  
103/103 [=====] - 0s 29us/step - loss: 221.0069 - acc: 0.0777 - mean\_s  
Epoch 4463/5000  
103/103 [=====] - 0s 29us/step - loss: 220.7831 - acc: 0.0777 - mean\_s  
Epoch 4464/5000  
103/103 [=====] - 0s 19us/step - loss: 220.5522 - acc: 0.0680 - mean\_s  
Epoch 4465/5000  
103/103 [=====] - 0s 29us/step - loss: 220.3327 - acc: 0.0680 - mean\_s



Epoch 4466/5000  
103/103 [=====] - 0s 29us/step - loss: 220.0934 - acc: 0.0680 - mean\_s  
Epoch 4467/5000  
103/103 [=====] - 0s 29us/step - loss: 219.8784 - acc: 0.0680 - mean\_s  
Epoch 4468/5000  
103/103 [=====] - 0s 19us/step - loss: 219.6726 - acc: 0.0777 - mean\_s  
Epoch 4469/5000  
103/103 [=====] - 0s 19us/step - loss: 219.4459 - acc: 0.0777 - mean\_s  
Epoch 4470/5000  
103/103 [=====] - 0s 29us/step - loss: 219.2073 - acc: 0.0777 - mean\_s  
Epoch 4471/5000  
103/103 [=====] - 0s 29us/step - loss: 218.9779 - acc: 0.0777 - mean\_s  
Epoch 4472/5000  
103/103 [=====] - 0s 29us/step - loss: 218.7768 - acc: 0.0680 - mean\_s  
Epoch 4473/5000  
103/103 [=====] - 0s 29us/step - loss: 218.5570 - acc: 0.0680 - mean\_s  
Epoch 4474/5000  
103/103 [=====] - 0s 29us/step - loss: 218.3366 - acc: 0.0680 - mean\_s  
Epoch 4475/5000  
103/103 [=====] - 0s 19us/step - loss: 218.1063 - acc: 0.0680 - mean\_s  
Epoch 4476/5000  
103/103 [=====] - 0s 29us/step - loss: 217.8954 - acc: 0.0680 - mean\_s  
Epoch 4477/5000  
103/103 [=====] - 0s 19us/step - loss: 217.6829 - acc: 0.0874 - mean\_s  
Epoch 4478/5000  
103/103 [=====] - 0s 29us/step - loss: 217.4829 - acc: 0.0874 - mean\_s  
Epoch 4479/5000  
103/103 [=====] - 0s 19us/step - loss: 217.2336 - acc: 0.0874 - mean\_s  
Epoch 4480/5000  
103/103 [=====] - 0s 29us/step - loss: 217.0281 - acc: 0.0777 - mean\_s  
Epoch 4481/5000  
103/103 [=====] - 0s 29us/step - loss: 216.8219 - acc: 0.0777 - mean\_s  
Epoch 4482/5000  
103/103 [=====] - 0s 19us/step - loss: 216.6182 - acc: 0.0777 - mean\_s  
Epoch 4483/5000  
103/103 [=====] - 0s 19us/step - loss: 216.3838 - acc: 0.0874 - mean\_s  
Epoch 4484/5000  
103/103 [=====] - 0s 19us/step - loss: 216.1472 - acc: 0.0874 - mean\_s  
Epoch 4485/5000  
103/103 [=====] - 0s 19us/step - loss: 215.9480 - acc: 0.0874 - mean\_s  
Epoch 4486/5000  
103/103 [=====] - 0s 19us/step - loss: 215.7565 - acc: 0.0874 - mean\_s  
Epoch 4487/5000  
103/103 [=====] - 0s 19us/step - loss: 215.5637 - acc: 0.0874 - mean\_s  
Epoch 4488/5000  
103/103 [=====] - 0s 19us/step - loss: 215.3445 - acc: 0.0874 - mean\_s  
Epoch 4489/5000  
103/103 [=====] - 0s 19us/step - loss: 215.1234 - acc: 0.0874 - mean\_s

Epoch 4490/5000  
103/103 [=====] - 0s 29us/step - loss: 214.9286 - acc: 0.0874 - mean\_s  
Epoch 4491/5000  
103/103 [=====] - 0s 19us/step - loss: 214.7274 - acc: 0.0874 - mean\_s  
Epoch 4492/5000  
103/103 [=====] - 0s 29us/step - loss: 214.5072 - acc: 0.0874 - mean\_s  
Epoch 4493/5000  
103/103 [=====] - 0s 29us/step - loss: 214.3156 - acc: 0.0874 - mean\_s  
Epoch 4494/5000  
103/103 [=====] - 0s 29us/step - loss: 214.1177 - acc: 0.0874 - mean\_s  
Epoch 4495/5000  
103/103 [=====] - 0s 19us/step - loss: 213.9154 - acc: 0.0874 - mean\_s  
Epoch 4496/5000  
103/103 [=====] - 0s 19us/step - loss: 213.6880 - acc: 0.0874 - mean\_s  
Epoch 4497/5000  
103/103 [=====] - 0s 19us/step - loss: 213.4726 - acc: 0.0874 - mean\_s  
Epoch 4498/5000  
103/103 [=====] - 0s 29us/step - loss: 213.2856 - acc: 0.0874 - mean\_s  
Epoch 4499/5000  
103/103 [=====] - 0s 19us/step - loss: 213.0772 - acc: 0.0874 - mean\_s  
Epoch 4500/5000  
103/103 [=====] - 0s 19us/step - loss: 212.8921 - acc: 0.0874 - mean\_s  
Epoch 4501/5000  
103/103 [=====] - 0s 29us/step - loss: 212.6770 - acc: 0.0874 - mean\_s  
Epoch 4502/5000  
103/103 [=====] - 0s 29us/step - loss: 212.4799 - acc: 0.0874 - mean\_s  
Epoch 4503/5000  
103/103 [=====] - 0s 19us/step - loss: 212.2834 - acc: 0.0874 - mean\_s  
Epoch 4504/5000  
103/103 [=====] - 0s 19us/step - loss: 212.0734 - acc: 0.0874 - mean\_s  
Epoch 4505/5000  
103/103 [=====] - 0s 29us/step - loss: 211.8712 - acc: 0.0874 - mean\_s  
Epoch 4506/5000  
103/103 [=====] - 0s 19us/step - loss: 211.6639 - acc: 0.0874 - mean\_s  
Epoch 4507/5000  
103/103 [=====] - 0s 19us/step - loss: 211.4588 - acc: 0.0874 - mean\_s  
Epoch 4508/5000  
103/103 [=====] - 0s 29us/step - loss: 211.2574 - acc: 0.0874 - mean\_s  
Epoch 4509/5000  
103/103 [=====] - 0s 29us/step - loss: 211.0605 - acc: 0.0874 - mean\_s  
Epoch 4510/5000  
103/103 [=====] - 0s 19us/step - loss: 210.8621 - acc: 0.0874 - mean\_s  
Epoch 4511/5000  
103/103 [=====] - 0s 19us/step - loss: 210.6585 - acc: 0.0874 - mean\_s  
Epoch 4512/5000  
103/103 [=====] - 0s 19us/step - loss: 210.4498 - acc: 0.0874 - mean\_s  
Epoch 4513/5000  
103/103 [=====] - 0s 19us/step - loss: 210.2392 - acc: 0.0874 - mean\_s

Epoch 4514/5000  
103/103 [=====] - 0s 19us/step - loss: 210.0500 - acc: 0.0874 - mean\_s  
Epoch 4515/5000  
103/103 [=====] - 0s 19us/step - loss: 209.8473 - acc: 0.0874 - mean\_s  
Epoch 4516/5000  
103/103 [=====] - 0s 19us/step - loss: 209.6370 - acc: 0.0874 - mean\_s  
Epoch 4517/5000  
103/103 [=====] - 0s 29us/step - loss: 209.4166 - acc: 0.0874 - mean\_s  
Epoch 4518/5000  
103/103 [=====] - 0s 29us/step - loss: 209.2155 - acc: 0.0874 - mean\_s  
Epoch 4519/5000  
103/103 [=====] - 0s 19us/step - loss: 209.0108 - acc: 0.0874 - mean\_s  
Epoch 4520/5000  
103/103 [=====] - 0s 29us/step - loss: 208.7939 - acc: 0.0874 - mean\_s  
Epoch 4521/5000  
103/103 [=====] - 0s 29us/step - loss: 208.5667 - acc: 0.0874 - mean\_s  
Epoch 4522/5000  
103/103 [=====] - 0s 19us/step - loss: 208.3214 - acc: 0.0874 - mean\_s  
Epoch 4523/5000  
103/103 [=====] - 0s 29us/step - loss: 208.0728 - acc: 0.0874 - mean\_s  
Epoch 4524/5000  
103/103 [=====] - 0s 29us/step - loss: 207.8309 - acc: 0.0874 - mean\_s  
Epoch 4525/5000  
103/103 [=====] - 0s 29us/step - loss: 207.5643 - acc: 0.0874 - mean\_s  
Epoch 4526/5000  
103/103 [=====] - 0s 29us/step - loss: 207.3205 - acc: 0.0874 - mean\_s  
Epoch 4527/5000  
103/103 [=====] - 0s 29us/step - loss: 207.0719 - acc: 0.0874 - mean\_s  
Epoch 4528/5000  
103/103 [=====] - 0s 29us/step - loss: 206.8156 - acc: 0.0874 - mean\_s  
Epoch 4529/5000  
103/103 [=====] - 0s 19us/step - loss: 206.5253 - acc: 0.0777 - mean\_s  
Epoch 4530/5000  
103/103 [=====] - 0s 19us/step - loss: 206.2487 - acc: 0.0777 - mean\_s  
Epoch 4531/5000  
103/103 [=====] - 0s 19us/step - loss: 205.9750 - acc: 0.0777 - mean\_s  
Epoch 4532/5000  
103/103 [=====] - 0s 29us/step - loss: 205.6949 - acc: 0.0777 - mean\_s  
Epoch 4533/5000  
103/103 [=====] - 0s 19us/step - loss: 205.4232 - acc: 0.0777 - mean\_s  
Epoch 4534/5000  
103/103 [=====] - 0s 29us/step - loss: 205.1471 - acc: 0.0777 - mean\_s  
Epoch 4535/5000  
103/103 [=====] - 0s 19us/step - loss: 204.9049 - acc: 0.0777 - mean\_s  
Epoch 4536/5000  
103/103 [=====] - 0s 19us/step - loss: 204.7087 - acc: 0.0777 - mean\_s  
Epoch 4537/5000  
103/103 [=====] - 0s 29us/step - loss: 204.5298 - acc: 0.0777 - mean\_s

Epoch 4538/5000  
103/103 [=====] - 0s 19us/step - loss: 204.3420 - acc: 0.0777 - mean\_s  
Epoch 4539/5000  
103/103 [=====] - 0s 19us/step - loss: 204.1548 - acc: 0.0777 - mean\_s  
Epoch 4540/5000  
103/103 [=====] - 0s 29us/step - loss: 203.9630 - acc: 0.0777 - mean\_s  
Epoch 4541/5000  
103/103 [=====] - 0s 29us/step - loss: 203.7491 - acc: 0.0680 - mean\_s  
Epoch 4542/5000  
103/103 [=====] - 0s 29us/step - loss: 203.5653 - acc: 0.0680 - mean\_s  
Epoch 4543/5000  
103/103 [=====] - 0s 29us/step - loss: 203.3645 - acc: 0.0680 - mean\_s  
Epoch 4544/5000  
103/103 [=====] - 0s 29us/step - loss: 203.1850 - acc: 0.0680 - mean\_s  
Epoch 4545/5000  
103/103 [=====] - 0s 19us/step - loss: 202.9738 - acc: 0.0680 - mean\_s  
Epoch 4546/5000  
103/103 [=====] - 0s 19us/step - loss: 202.8176 - acc: 0.0777 - mean\_s  
Epoch 4547/5000  
103/103 [=====] - 0s 29us/step - loss: 202.6151 - acc: 0.0680 - mean\_s  
Epoch 4548/5000  
103/103 [=====] - 0s 29us/step - loss: 202.4059 - acc: 0.0680 - mean\_s  
Epoch 4549/5000  
103/103 [=====] - 0s 29us/step - loss: 202.2234 - acc: 0.0680 - mean\_s  
Epoch 4550/5000  
103/103 [=====] - 0s 19us/step - loss: 202.0367 - acc: 0.0680 - mean\_s  
Epoch 4551/5000  
103/103 [=====] - 0s 19us/step - loss: 201.8314 - acc: 0.0777 - mean\_s  
Epoch 4552/5000  
103/103 [=====] - 0s 29us/step - loss: 201.6416 - acc: 0.0777 - mean\_s  
Epoch 4553/5000  
103/103 [=====] - 0s 29us/step - loss: 201.4517 - acc: 0.0874 - mean\_s  
Epoch 4554/5000  
103/103 [=====] - 0s 29us/step - loss: 201.2382 - acc: 0.0777 - mean\_s  
Epoch 4555/5000  
103/103 [=====] - 0s 19us/step - loss: 201.0600 - acc: 0.0777 - mean\_s  
Epoch 4556/5000  
103/103 [=====] - 0s 19us/step - loss: 200.8536 - acc: 0.0777 - mean\_s  
Epoch 4557/5000  
103/103 [=====] - 0s 29us/step - loss: 200.6598 - acc: 0.0777 - mean\_s  
Epoch 4558/5000  
103/103 [=====] - 0s 19us/step - loss: 200.4924 - acc: 0.0777 - mean\_s  
Epoch 4559/5000  
103/103 [=====] - 0s 29us/step - loss: 200.3009 - acc: 0.0777 - mean\_s  
Epoch 4560/5000  
103/103 [=====] - 0s 29us/step - loss: 200.1175 - acc: 0.0777 - mean\_s  
Epoch 4561/5000  
103/103 [=====] - 0s 19us/step - loss: 199.9235 - acc: 0.0874 - mean\_s

Epoch 4562/5000  
103/103 [=====] - 0s 29us/step - loss: 199.7723 - acc: 0.0874 - mean\_s  
Epoch 4563/5000  
103/103 [=====] - 0s 29us/step - loss: 199.5815 - acc: 0.0874 - mean\_s  
Epoch 4564/5000  
103/103 [=====] - 0s 29us/step - loss: 199.3755 - acc: 0.0874 - mean\_s  
Epoch 4565/5000  
103/103 [=====] - 0s 29us/step - loss: 199.1761 - acc: 0.0874 - mean\_s  
Epoch 4566/5000  
103/103 [=====] - 0s 29us/step - loss: 198.9850 - acc: 0.0874 - mean\_s  
Epoch 4567/5000  
103/103 [=====] - 0s 29us/step - loss: 198.8186 - acc: 0.0874 - mean\_s  
Epoch 4568/5000  
103/103 [=====] - 0s 29us/step - loss: 198.6439 - acc: 0.0874 - mean\_s  
Epoch 4569/5000  
103/103 [=====] - 0s 29us/step - loss: 198.4472 - acc: 0.0874 - mean\_s  
Epoch 4570/5000  
103/103 [=====] - 0s 29us/step - loss: 198.2755 - acc: 0.0874 - mean\_s  
Epoch 4571/5000  
103/103 [=====] - 0s 29us/step - loss: 198.0836 - acc: 0.0874 - mean\_s  
Epoch 4572/5000  
103/103 [=====] - 0s 29us/step - loss: 197.9007 - acc: 0.0874 - mean\_s  
Epoch 4573/5000  
103/103 [=====] - 0s 19us/step - loss: 197.7020 - acc: 0.0874 - mean\_s  
Epoch 4574/5000  
103/103 [=====] - 0s 29us/step - loss: 197.5209 - acc: 0.0777 - mean\_s  
Epoch 4575/5000  
103/103 [=====] - 0s 19us/step - loss: 197.3212 - acc: 0.0777 - mean\_s  
Epoch 4576/5000  
103/103 [=====] - 0s 29us/step - loss: 197.1343 - acc: 0.0777 - mean\_s  
Epoch 4577/5000  
103/103 [=====] - 0s 29us/step - loss: 196.9443 - acc: 0.0777 - mean\_s  
Epoch 4578/5000  
103/103 [=====] - 0s 19us/step - loss: 196.7428 - acc: 0.0777 - mean\_s  
Epoch 4579/5000  
103/103 [=====] - 0s 19us/step - loss: 196.5648 - acc: 0.0777 - mean\_s  
Epoch 4580/5000  
103/103 [=====] - 0s 19us/step - loss: 196.3734 - acc: 0.0777 - mean\_s  
Epoch 4581/5000  
103/103 [=====] - 0s 19us/step - loss: 196.1683 - acc: 0.0777 - mean\_s  
Epoch 4582/5000  
103/103 [=====] - 0s 29us/step - loss: 195.9686 - acc: 0.0777 - mean\_s  
Epoch 4583/5000  
103/103 [=====] - 0s 39us/step - loss: 195.8000 - acc: 0.0777 - mean\_s  
Epoch 4584/5000  
103/103 [=====] - 0s 19us/step - loss: 195.6043 - acc: 0.0777 - mean\_s  
Epoch 4585/5000  
103/103 [=====] - 0s 19us/step - loss: 195.3938 - acc: 0.0777 - mean\_s

Epoch 4586/5000  
103/103 [=====] - 0s 29us/step - loss: 195.2332 - acc: 0.0777 - mean\_s  
Epoch 4587/5000  
103/103 [=====] - 0s 19us/step - loss: 195.0609 - acc: 0.0777 - mean\_s  
Epoch 4588/5000  
103/103 [=====] - 0s 19us/step - loss: 194.8640 - acc: 0.0777 - mean\_s  
Epoch 4589/5000  
103/103 [=====] - 0s 19us/step - loss: 194.6482 - acc: 0.0680 - mean\_s  
Epoch 4590/5000  
103/103 [=====] - 0s 19us/step - loss: 194.4859 - acc: 0.0680 - mean\_s  
Epoch 4591/5000  
103/103 [=====] - 0s 29us/step - loss: 194.2993 - acc: 0.0777 - mean\_s  
Epoch 4592/5000  
103/103 [=====] - 0s 29us/step - loss: 194.0915 - acc: 0.0777 - mean\_s  
Epoch 4593/5000  
103/103 [=====] - 0s 19us/step - loss: 193.8937 - acc: 0.0777 - mean\_s  
Epoch 4594/5000  
103/103 [=====] - 0s 19us/step - loss: 193.7170 - acc: 0.0874 - mean\_s  
Epoch 4595/5000  
103/103 [=====] - 0s 29us/step - loss: 193.5406 - acc: 0.0971 - mean\_s  
Epoch 4596/5000  
103/103 [=====] - 0s 29us/step - loss: 193.3609 - acc: 0.0971 - mean\_s  
Epoch 4597/5000  
103/103 [=====] - 0s 29us/step - loss: 193.1589 - acc: 0.0874 - mean\_s  
Epoch 4598/5000  
103/103 [=====] - 0s 29us/step - loss: 192.9631 - acc: 0.0874 - mean\_s  
Epoch 4599/5000  
103/103 [=====] - 0s 29us/step - loss: 192.7842 - acc: 0.0874 - mean\_s  
Epoch 4600/5000  
103/103 [=====] - 0s 19us/step - loss: 192.6005 - acc: 0.0874 - mean\_s  
Epoch 4601/5000  
103/103 [=====] - 0s 19us/step - loss: 192.4051 - acc: 0.0874 - mean\_s  
Epoch 4602/5000  
103/103 [=====] - 0s 29us/step - loss: 192.2119 - acc: 0.0874 - mean\_s  
Epoch 4603/5000  
103/103 [=====] - 0s 19us/step - loss: 192.0418 - acc: 0.0874 - mean\_s  
Epoch 4604/5000  
103/103 [=====] - 0s 29us/step - loss: 191.8711 - acc: 0.0874 - mean\_s  
Epoch 4605/5000  
103/103 [=====] - 0s 29us/step - loss: 191.6892 - acc: 0.0874 - mean\_s  
Epoch 4606/5000  
103/103 [=====] - 0s 29us/step - loss: 191.5027 - acc: 0.0874 - mean\_s  
Epoch 4607/5000  
103/103 [=====] - 0s 29us/step - loss: 191.3264 - acc: 0.0874 - mean\_s  
Epoch 4608/5000  
103/103 [=====] - 0s 29us/step - loss: 191.1522 - acc: 0.0874 - mean\_s  
Epoch 4609/5000  
103/103 [=====] - 0s 19us/step - loss: 190.9476 - acc: 0.0874 - mean\_s

Epoch 4610/5000  
103/103 [=====] - 0s 19us/step - loss: 190.7770 - acc: 0.0971 - mean\_s  
Epoch 4611/5000  
103/103 [=====] - 0s 19us/step - loss: 190.6065 - acc: 0.0971 - mean\_s  
Epoch 4612/5000  
103/103 [=====] - 0s 29us/step - loss: 190.4036 - acc: 0.0971 - mean\_s  
Epoch 4613/5000  
103/103 [=====] - 0s 29us/step - loss: 190.2307 - acc: 0.0971 - mean\_s  
Epoch 4614/5000  
103/103 [=====] - 0s 29us/step - loss: 190.0532 - acc: 0.0874 - mean\_s  
Epoch 4615/5000  
103/103 [=====] - 0s 29us/step - loss: 189.8723 - acc: 0.0874 - mean\_s  
Epoch 4616/5000  
103/103 [=====] - 0s 19us/step - loss: 189.6784 - acc: 0.0874 - mean\_s  
Epoch 4617/5000  
103/103 [=====] - 0s 29us/step - loss: 189.5186 - acc: 0.0874 - mean\_s  
Epoch 4618/5000  
103/103 [=====] - 0s 19us/step - loss: 189.3449 - acc: 0.0874 - mean\_s  
Epoch 4619/5000  
103/103 [=====] - 0s 29us/step - loss: 189.1631 - acc: 0.0874 - mean\_s  
Epoch 4620/5000  
103/103 [=====] - 0s 19us/step - loss: 188.9755 - acc: 0.0874 - mean\_s  
Epoch 4621/5000  
103/103 [=====] - 0s 19us/step - loss: 188.8065 - acc: 0.0874 - mean\_s  
Epoch 4622/5000  
103/103 [=====] - 0s 39us/step - loss: 188.6370 - acc: 0.0874 - mean\_s  
Epoch 4623/5000  
103/103 [=====] - 0s 29us/step - loss: 188.4544 - acc: 0.0874 - mean\_s  
Epoch 4624/5000  
103/103 [=====] - 0s 29us/step - loss: 188.2708 - acc: 0.0971 - mean\_s  
Epoch 4625/5000  
103/103 [=====] - 0s 19us/step - loss: 188.0932 - acc: 0.0971 - mean\_s  
Epoch 4626/5000  
103/103 [=====] - 0s 29us/step - loss: 187.9224 - acc: 0.0971 - mean\_s  
Epoch 4627/5000  
103/103 [=====] - 0s 19us/step - loss: 187.7575 - acc: 0.0971 - mean\_s  
Epoch 4628/5000  
103/103 [=====] - 0s 19us/step - loss: 187.5945 - acc: 0.0971 - mean\_s  
Epoch 4629/5000  
103/103 [=====] - 0s 29us/step - loss: 187.4226 - acc: 0.1068 - mean\_s  
Epoch 4630/5000  
103/103 [=====] - 0s 29us/step - loss: 187.2355 - acc: 0.0874 - mean\_s  
Epoch 4631/5000  
103/103 [=====] - 0s 29us/step - loss: 187.0797 - acc: 0.0874 - mean\_s  
Epoch 4632/5000  
103/103 [=====] - 0s 29us/step - loss: 186.9352 - acc: 0.0971 - mean\_s  
Epoch 4633/5000  
103/103 [=====] - 0s 19us/step - loss: 186.7637 - acc: 0.0971 - mean\_s

Epoch 4634/5000  
103/103 [=====] - 0s 29us/step - loss: 186.5718 - acc: 0.0971 - mean\_s  
Epoch 4635/5000  
103/103 [=====] - 0s 29us/step - loss: 186.4167 - acc: 0.0971 - mean\_s  
Epoch 4636/5000  
103/103 [=====] - 0s 19us/step - loss: 186.2385 - acc: 0.0971 - mean\_s  
Epoch 4637/5000  
103/103 [=====] - 0s 29us/step - loss: 186.0535 - acc: 0.0874 - mean\_s  
Epoch 4638/5000  
103/103 [=====] - 0s 19us/step - loss: 185.9107 - acc: 0.0874 - mean\_s  
Epoch 4639/5000  
103/103 [=====] - 0s 19us/step - loss: 185.7517 - acc: 0.0874 - mean\_s  
Epoch 4640/5000  
103/103 [=====] - 0s 29us/step - loss: 185.5881 - acc: 0.1068 - mean\_s  
Epoch 4641/5000  
103/103 [=====] - 0s 29us/step - loss: 185.3830 - acc: 0.1068 - mean\_s  
Epoch 4642/5000  
103/103 [=====] - 0s 29us/step - loss: 185.2315 - acc: 0.0971 - mean\_s  
Epoch 4643/5000  
103/103 [=====] - 0s 29us/step - loss: 185.0718 - acc: 0.1068 - mean\_s  
Epoch 4644/5000  
103/103 [=====] - 0s 29us/step - loss: 184.9100 - acc: 0.0971 - mean\_s  
Epoch 4645/5000  
103/103 [=====] - 0s 19us/step - loss: 184.7177 - acc: 0.0971 - mean\_s  
Epoch 4646/5000  
103/103 [=====] - 0s 29us/step - loss: 184.5507 - acc: 0.0971 - mean\_s  
Epoch 4647/5000  
103/103 [=====] - 0s 29us/step - loss: 184.4200 - acc: 0.1068 - mean\_s  
Epoch 4648/5000  
103/103 [=====] - 0s 19us/step - loss: 184.2849 - acc: 0.1068 - mean\_s  
Epoch 4649/5000  
103/103 [=====] - 0s 29us/step - loss: 184.1015 - acc: 0.0971 - mean\_s  
Epoch 4650/5000  
103/103 [=====] - 0s 29us/step - loss: 183.8965 - acc: 0.0971 - mean\_s  
Epoch 4651/5000  
103/103 [=====] - 0s 29us/step - loss: 183.7200 - acc: 0.0971 - mean\_s  
Epoch 4652/5000  
103/103 [=====] - 0s 19us/step - loss: 183.5738 - acc: 0.0971 - mean\_s  
Epoch 4653/5000  
103/103 [=====] - 0s 19us/step - loss: 183.3968 - acc: 0.1068 - mean\_s  
Epoch 4654/5000  
103/103 [=====] - 0s 29us/step - loss: 183.2247 - acc: 0.1068 - mean\_s  
Epoch 4655/5000  
103/103 [=====] - 0s 29us/step - loss: 183.0864 - acc: 0.1068 - mean\_s  
Epoch 4656/5000  
103/103 [=====] - 0s 29us/step - loss: 182.9352 - acc: 0.1068 - mean\_s  
Epoch 4657/5000  
103/103 [=====] - 0s 29us/step - loss: 182.7536 - acc: 0.1068 - mean\_s



Epoch 4658/5000  
103/103 [=====] - 0s 19us/step - loss: 182.5759 - acc: 0.0971 - mean\_s  
Epoch 4659/5000  
103/103 [=====] - 0s 19us/step - loss: 182.4312 - acc: 0.0971 - mean\_s  
Epoch 4660/5000  
103/103 [=====] - 0s 19us/step - loss: 182.2849 - acc: 0.1068 - mean\_s  
Epoch 4661/5000  
103/103 [=====] - 0s 19us/step - loss: 182.1256 - acc: 0.1068 - mean\_s  
Epoch 4662/5000  
103/103 [=====] - 0s 19us/step - loss: 181.9480 - acc: 0.1068 - mean\_s  
Epoch 4663/5000  
103/103 [=====] - 0s 19us/step - loss: 181.7807 - acc: 0.1068 - mean\_s  
Epoch 4664/5000  
103/103 [=====] - 0s 29us/step - loss: 181.6334 - acc: 0.1068 - mean\_s  
Epoch 4665/5000  
103/103 [=====] - 0s 29us/step - loss: 181.4789 - acc: 0.1068 - mean\_s  
Epoch 4666/5000  
103/103 [=====] - 0s 19us/step - loss: 181.3042 - acc: 0.1068 - mean\_s  
Epoch 4667/5000  
103/103 [=====] - 0s 19us/step - loss: 181.1582 - acc: 0.0971 - mean\_s  
Epoch 4668/5000  
103/103 [=====] - 0s 19us/step - loss: 180.9809 - acc: 0.1068 - mean\_s  
Epoch 4669/5000  
103/103 [=====] - 0s 19us/step - loss: 180.8344 - acc: 0.1068 - mean\_s  
Epoch 4670/5000  
103/103 [=====] - 0s 19us/step - loss: 180.6847 - acc: 0.1068 - mean\_s  
Epoch 4671/5000  
103/103 [=====] - 0s 19us/step - loss: 180.5146 - acc: 0.1068 - mean\_s  
Epoch 4672/5000  
103/103 [=====] - 0s 29us/step - loss: 180.3543 - acc: 0.1068 - mean\_s  
Epoch 4673/5000  
103/103 [=====] - 0s 19us/step - loss: 180.2047 - acc: 0.1068 - mean\_s  
Epoch 4674/5000  
103/103 [=====] - 0s 29us/step - loss: 180.0378 - acc: 0.0971 - mean\_s  
Epoch 4675/5000  
103/103 [=====] - 0s 29us/step - loss: 179.8959 - acc: 0.0971 - mean\_s  
Epoch 4676/5000  
103/103 [=====] - 0s 29us/step - loss: 179.7353 - acc: 0.1068 - mean\_s  
Epoch 4677/5000  
103/103 [=====] - 0s 29us/step - loss: 179.5622 - acc: 0.1068 - mean\_s  
Epoch 4678/5000  
103/103 [=====] - 0s 19us/step - loss: 179.4452 - acc: 0.1068 - mean\_s  
Epoch 4679/5000  
103/103 [=====] - 0s 29us/step - loss: 179.2891 - acc: 0.1068 - mean\_s  
Epoch 4680/5000  
103/103 [=====] - 0s 19us/step - loss: 179.0952 - acc: 0.1068 - mean\_s  
Epoch 4681/5000  
103/103 [=====] - 0s 19us/step - loss: 178.9457 - acc: 0.1068 - mean\_s

Epoch 4682/5000  
103/103 [=====] - 0s 29us/step - loss: 178.7894 - acc: 0.1068 - mean\_s  
Epoch 4683/5000  
103/103 [=====] - 0s 29us/step - loss: 178.6412 - acc: 0.1068 - mean\_s  
Epoch 4684/5000  
103/103 [=====] - 0s 29us/step - loss: 178.4958 - acc: 0.1068 - mean\_s  
Epoch 4685/5000  
103/103 [=====] - 0s 29us/step - loss: 178.3291 - acc: 0.1068 - mean\_s  
Epoch 4686/5000  
103/103 [=====] - 0s 19us/step - loss: 178.1777 - acc: 0.1068 - mean\_s  
Epoch 4687/5000  
103/103 [=====] - 0s 29us/step - loss: 178.0331 - acc: 0.1068 - mean\_s  
Epoch 4688/5000  
103/103 [=====] - 0s 29us/step - loss: 177.8683 - acc: 0.1068 - mean\_s  
Epoch 4689/5000  
103/103 [=====] - 0s 29us/step - loss: 177.7263 - acc: 0.1165 - mean\_s  
Epoch 4690/5000  
103/103 [=====] - 0s 29us/step - loss: 177.5752 - acc: 0.1165 - mean\_s  
Epoch 4691/5000  
103/103 [=====] - 0s 19us/step - loss: 177.4134 - acc: 0.1165 - mean\_s  
Epoch 4692/5000  
103/103 [=====] - 0s 29us/step - loss: 177.2797 - acc: 0.1165 - mean\_s  
Epoch 4693/5000  
103/103 [=====] - 0s 29us/step - loss: 177.1266 - acc: 0.1165 - mean\_s  
Epoch 4694/5000  
103/103 [=====] - 0s 29us/step - loss: 176.9699 - acc: 0.1165 - mean\_s  
Epoch 4695/5000  
103/103 [=====] - 0s 19us/step - loss: 176.8139 - acc: 0.1165 - mean\_s  
Epoch 4696/5000  
103/103 [=====] - 0s 29us/step - loss: 176.6746 - acc: 0.1165 - mean\_s  
Epoch 4697/5000  
103/103 [=====] - 0s 19us/step - loss: 176.5119 - acc: 0.1165 - mean\_s  
Epoch 4698/5000  
103/103 [=====] - 0s 29us/step - loss: 176.3687 - acc: 0.1165 - mean\_s  
Epoch 4699/5000  
103/103 [=====] - 0s 29us/step - loss: 176.2296 - acc: 0.1165 - mean\_s  
Epoch 4700/5000  
103/103 [=====] - 0s 29us/step - loss: 176.0904 - acc: 0.1165 - mean\_s  
Epoch 4701/5000  
103/103 [=====] - 0s 19us/step - loss: 175.9331 - acc: 0.1165 - mean\_s  
Epoch 4702/5000  
103/103 [=====] - 0s 19us/step - loss: 175.7934 - acc: 0.1165 - mean\_s  
Epoch 4703/5000  
103/103 [=====] - 0s 19us/step - loss: 175.6279 - acc: 0.1165 - mean\_s  
Epoch 4704/5000  
103/103 [=====] - 0s 29us/step - loss: 175.4773 - acc: 0.1165 - mean\_s  
Epoch 4705/5000  
103/103 [=====] - 0s 19us/step - loss: 175.3553 - acc: 0.1165 - mean\_s

Epoch 4706/5000  
103/103 [=====] - 0s 29us/step - loss: 175.2132 - acc: 0.1165 - mean\_s  
Epoch 4707/5000  
103/103 [=====] - 0s 19us/step - loss: 175.0478 - acc: 0.1165 - mean\_s  
Epoch 4708/5000  
103/103 [=====] - 0s 29us/step - loss: 174.8994 - acc: 0.1165 - mean\_s  
Epoch 4709/5000  
103/103 [=====] - 0s 19us/step - loss: 174.7424 - acc: 0.1165 - mean\_s  
Epoch 4710/5000  
103/103 [=====] - 0s 19us/step - loss: 174.6054 - acc: 0.1165 - mean\_s  
Epoch 4711/5000  
103/103 [=====] - 0s 19us/step - loss: 174.4598 - acc: 0.1165 - mean\_s  
Epoch 4712/5000  
103/103 [=====] - 0s 29us/step - loss: 174.2937 - acc: 0.1068 - mean\_s  
Epoch 4713/5000  
103/103 [=====] - 0s 29us/step - loss: 174.1467 - acc: 0.1165 - mean\_s  
Epoch 4714/5000  
103/103 [=====] - 0s 29us/step - loss: 174.0220 - acc: 0.1262 - mean\_s  
Epoch 4715/5000  
103/103 [=====] - 0s 29us/step - loss: 173.8654 - acc: 0.1165 - mean\_s  
Epoch 4716/5000  
103/103 [=====] - 0s 29us/step - loss: 173.6999 - acc: 0.1165 - mean\_s  
Epoch 4717/5000  
103/103 [=====] - 0s 29us/step - loss: 173.5421 - acc: 0.1165 - mean\_s  
Epoch 4718/5000  
103/103 [=====] - 0s 19us/step - loss: 173.4204 - acc: 0.1165 - mean\_s  
Epoch 4719/5000  
103/103 [=====] - 0s 29us/step - loss: 173.2707 - acc: 0.1262 - mean\_s  
Epoch 4720/5000  
103/103 [=====] - 0s 29us/step - loss: 173.1277 - acc: 0.1262 - mean\_s  
Epoch 4721/5000  
103/103 [=====] - 0s 29us/step - loss: 172.9867 - acc: 0.1068 - mean\_s  
Epoch 4722/5000  
103/103 [=====] - 0s 19us/step - loss: 172.8293 - acc: 0.1068 - mean\_s  
Epoch 4723/5000  
103/103 [=====] - 0s 19us/step - loss: 172.6713 - acc: 0.1068 - mean\_s  
Epoch 4724/5000  
103/103 [=====] - 0s 29us/step - loss: 172.5412 - acc: 0.1068 - mean\_s  
Epoch 4725/5000  
103/103 [=====] - 0s 19us/step - loss: 172.3970 - acc: 0.1068 - mean\_s  
Epoch 4726/5000  
103/103 [=====] - 0s 19us/step - loss: 172.2373 - acc: 0.1068 - mean\_s  
Epoch 4727/5000  
103/103 [=====] - 0s 19us/step - loss: 172.1048 - acc: 0.1165 - mean\_s  
Epoch 4728/5000  
103/103 [=====] - 0s 29us/step - loss: 171.9646 - acc: 0.1068 - mean\_s  
Epoch 4729/5000  
103/103 [=====] - 0s 29us/step - loss: 171.8229 - acc: 0.1068 - mean\_s

Epoch 4730/5000  
103/103 [=====] - 0s 19us/step - loss: 171.6741 - acc: 0.1068 - mean\_s  
Epoch 4731/5000  
103/103 [=====] - 0s 19us/step - loss: 171.5275 - acc: 0.1165 - mean\_s  
Epoch 4732/5000  
103/103 [=====] - 0s 29us/step - loss: 171.3877 - acc: 0.1165 - mean\_s  
Epoch 4733/5000  
103/103 [=====] - 0s 19us/step - loss: 171.2502 - acc: 0.1262 - mean\_s  
Epoch 4734/5000  
103/103 [=====] - 0s 29us/step - loss: 171.1084 - acc: 0.1262 - mean\_s  
Epoch 4735/5000  
103/103 [=====] - 0s 29us/step - loss: 170.9520 - acc: 0.1262 - mean\_s  
Epoch 4736/5000  
103/103 [=====] - 0s 19us/step - loss: 170.8160 - acc: 0.1262 - mean\_s  
Epoch 4737/5000  
103/103 [=====] - 0s 19us/step - loss: 170.6730 - acc: 0.1262 - mean\_s  
Epoch 4738/5000  
103/103 [=====] - 0s 19us/step - loss: 170.5211 - acc: 0.1068 - mean\_s  
Epoch 4739/5000  
103/103 [=====] - 0s 29us/step - loss: 170.4380 - acc: 0.1068 - mean\_s  
Epoch 4740/5000  
103/103 [=====] - 0s 29us/step - loss: 170.3094 - acc: 0.1068 - mean\_s  
Epoch 4741/5000  
103/103 [=====] - 0s 29us/step - loss: 170.1601 - acc: 0.1068 - mean\_s  
Epoch 4742/5000  
103/103 [=====] - 0s 29us/step - loss: 170.0029 - acc: 0.1165 - mean\_s  
Epoch 4743/5000  
103/103 [=====] - 0s 29us/step - loss: 169.8986 - acc: 0.1262 - mean\_s  
Epoch 4744/5000  
103/103 [=====] - 0s 29us/step - loss: 169.7787 - acc: 0.1262 - mean\_s  
Epoch 4745/5000  
103/103 [=====] - 0s 29us/step - loss: 169.6384 - acc: 0.1262 - mean\_s  
Epoch 4746/5000  
103/103 [=====] - 0s 19us/step - loss: 169.4850 - acc: 0.1262 - mean\_s  
Epoch 4747/5000  
103/103 [=====] - 0s 19us/step - loss: 169.3743 - acc: 0.1262 - mean\_s  
Epoch 4748/5000  
103/103 [=====] - 0s 19us/step - loss: 169.2217 - acc: 0.1262 - mean\_s  
Epoch 4749/5000  
103/103 [=====] - 0s 19us/step - loss: 169.1020 - acc: 0.1165 - mean\_s  
Epoch 4750/5000  
103/103 [=====] - 0s 29us/step - loss: 168.9874 - acc: 0.1068 - mean\_s  
Epoch 4751/5000  
103/103 [=====] - 0s 29us/step - loss: 168.8579 - acc: 0.1068 - mean\_s  
Epoch 4752/5000  
103/103 [=====] - 0s 19us/step - loss: 168.7390 - acc: 0.1165 - mean\_s  
Epoch 4753/5000  
103/103 [=====] - 0s 29us/step - loss: 168.6044 - acc: 0.1262 - mean\_s

Epoch 4754/5000  
103/103 [=====] - 0s 29us/step - loss: 168.4912 - acc: 0.1262 - mean\_s  
Epoch 4755/5000  
103/103 [=====] - 0s 29us/step - loss: 168.3672 - acc: 0.1262 - mean\_s  
Epoch 4756/5000  
103/103 [=====] - 0s 29us/step - loss: 168.2295 - acc: 0.1262 - mean\_s  
Epoch 4757/5000  
103/103 [=====] - 0s 19us/step - loss: 168.0784 - acc: 0.1165 - mean\_s  
Epoch 4758/5000  
103/103 [=====] - 0s 19us/step - loss: 167.9712 - acc: 0.1068 - mean\_s  
Epoch 4759/5000  
103/103 [=====] - 0s 29us/step - loss: 167.8657 - acc: 0.1068 - mean\_s  
Epoch 4760/5000  
103/103 [=====] - 0s 29us/step - loss: 167.7322 - acc: 0.1068 - mean\_s  
Epoch 4761/5000  
103/103 [=====] - 0s 17us/step - loss: 167.6055 - acc: 0.1068 - mean\_s  
Epoch 4762/5000  
103/103 [=====] - 0s 25us/step - loss: 167.5013 - acc: 0.1068 - mean\_s  
Epoch 4763/5000  
103/103 [=====] - 0s 19us/step - loss: 167.3780 - acc: 0.1068 - mean\_s  
Epoch 4764/5000  
103/103 [=====] - 0s 19us/step - loss: 167.2641 - acc: 0.1068 - mean\_s  
Epoch 4765/5000  
103/103 [=====] - 0s 19us/step - loss: 167.1329 - acc: 0.1068 - mean\_s  
Epoch 4766/5000  
103/103 [=====] - 0s 19us/step - loss: 166.9654 - acc: 0.1068 - mean\_s  
Epoch 4767/5000  
103/103 [=====] - 0s 29us/step - loss: 166.8852 - acc: 0.1165 - mean\_s  
Epoch 4768/5000  
103/103 [=====] - 0s 29us/step - loss: 166.7733 - acc: 0.1165 - mean\_s  
Epoch 4769/5000  
103/103 [=====] - 0s 19us/step - loss: 166.6351 - acc: 0.1068 - mean\_s  
Epoch 4770/5000  
103/103 [=====] - 0s 29us/step - loss: 166.4914 - acc: 0.0971 - mean\_s  
Epoch 4771/5000  
103/103 [=====] - 0s 29us/step - loss: 166.3605 - acc: 0.0971 - mean\_s  
Epoch 4772/5000  
103/103 [=====] - 0s 29us/step - loss: 166.2473 - acc: 0.0971 - mean\_s  
Epoch 4773/5000  
103/103 [=====] - 0s 19us/step - loss: 166.1411 - acc: 0.0971 - mean\_s  
Epoch 4774/5000  
103/103 [=====] - 0s 19us/step - loss: 166.0035 - acc: 0.0874 - mean\_s  
Epoch 4775/5000  
103/103 [=====] - 0s 19us/step - loss: 165.8678 - acc: 0.0874 - mean\_s  
Epoch 4776/5000  
103/103 [=====] - 0s 19us/step - loss: 165.7373 - acc: 0.0874 - mean\_s  
Epoch 4777/5000  
103/103 [=====] - 0s 29us/step - loss: 165.6064 - acc: 0.1068 - mean\_s

Epoch 4778/5000  
103/103 [=====] - 0s 29us/step - loss: 165.4807 - acc: 0.1068 - mean\_s  
Epoch 4779/5000  
103/103 [=====] - 0s 19us/step - loss: 165.3569 - acc: 0.1068 - mean\_s  
Epoch 4780/5000  
103/103 [=====] - 0s 19us/step - loss: 165.2011 - acc: 0.0971 - mean\_s  
Epoch 4781/5000  
103/103 [=====] - 0s 29us/step - loss: 165.0515 - acc: 0.0971 - mean\_s  
Epoch 4782/5000  
103/103 [=====] - 0s 29us/step - loss: 164.9432 - acc: 0.1165 - mean\_s  
Epoch 4783/5000  
103/103 [=====] - 0s 29us/step - loss: 164.8058 - acc: 0.1068 - mean\_s  
Epoch 4784/5000  
103/103 [=====] - 0s 29us/step - loss: 164.6584 - acc: 0.0874 - mean\_s  
Epoch 4785/5000  
103/103 [=====] - 0s 19us/step - loss: 164.5143 - acc: 0.0874 - mean\_s  
Epoch 4786/5000  
103/103 [=====] - 0s 29us/step - loss: 164.3883 - acc: 0.0874 - mean\_s  
Epoch 4787/5000  
103/103 [=====] - 0s 29us/step - loss: 164.2515 - acc: 0.0971 - mean\_s  
Epoch 4788/5000  
103/103 [=====] - 0s 29us/step - loss: 164.0930 - acc: 0.0874 - mean\_s  
Epoch 4789/5000  
103/103 [=====] - 0s 19us/step - loss: 163.9594 - acc: 0.0874 - mean\_s  
Epoch 4790/5000  
103/103 [=====] - 0s 29us/step - loss: 163.8409 - acc: 0.0874 - mean\_s  
Epoch 4791/5000  
103/103 [=====] - 0s 29us/step - loss: 163.6928 - acc: 0.0874 - mean\_s  
Epoch 4792/5000  
103/103 [=====] - 0s 19us/step - loss: 163.5587 - acc: 0.0777 - mean\_s  
Epoch 4793/5000  
103/103 [=====] - 0s 29us/step - loss: 163.4345 - acc: 0.0777 - mean\_s  
Epoch 4794/5000  
103/103 [=====] - 0s 29us/step - loss: 163.2989 - acc: 0.0777 - mean\_s  
Epoch 4795/5000  
103/103 [=====] - 0s 19us/step - loss: 163.1763 - acc: 0.0777 - mean\_s  
Epoch 4796/5000  
103/103 [=====] - 0s 29us/step - loss: 163.0330 - acc: 0.0777 - mean\_s  
Epoch 4797/5000  
103/103 [=====] - 0s 19us/step - loss: 162.9114 - acc: 0.0777 - mean\_s  
Epoch 4798/5000  
103/103 [=====] - 0s 29us/step - loss: 162.7848 - acc: 0.0874 - mean\_s  
Epoch 4799/5000  
103/103 [=====] - 0s 19us/step - loss: 162.6470 - acc: 0.0874 - mean\_s  
Epoch 4800/5000  
103/103 [=====] - 0s 19us/step - loss: 162.5323 - acc: 0.0777 - mean\_s  
Epoch 4801/5000  
103/103 [=====] - 0s 19us/step - loss: 162.4164 - acc: 0.0777 - mean\_s

Epoch 4802/5000  
103/103 [=====] - 0s 29us/step - loss: 162.2878 - acc: 0.0777 - mean\_s  
Epoch 4803/5000  
103/103 [=====] - 0s 19us/step - loss: 162.1336 - acc: 0.0777 - mean\_s  
Epoch 4804/5000  
103/103 [=====] - 0s 29us/step - loss: 162.0159 - acc: 0.0777 - mean\_s  
Epoch 4805/5000  
103/103 [=====] - 0s 29us/step - loss: 161.9039 - acc: 0.0777 - mean\_s  
Epoch 4806/5000  
103/103 [=====] - 0s 19us/step - loss: 161.7587 - acc: 0.0971 - mean\_s  
Epoch 4807/5000  
103/103 [=====] - 0s 29us/step - loss: 161.6115 - acc: 0.0971 - mean\_s  
Epoch 4808/5000  
103/103 [=====] - 0s 29us/step - loss: 161.4939 - acc: 0.0971 - mean\_s  
Epoch 4809/5000  
103/103 [=====] - 0s 29us/step - loss: 161.3640 - acc: 0.0971 - mean\_s  
Epoch 4810/5000  
103/103 [=====] - 0s 19us/step - loss: 161.2472 - acc: 0.0971 - mean\_s  
Epoch 4811/5000  
103/103 [=====] - 0s 29us/step - loss: 161.1008 - acc: 0.0971 - mean\_s  
Epoch 4812/5000  
103/103 [=====] - 0s 29us/step - loss: 160.9873 - acc: 0.0777 - mean\_s  
Epoch 4813/5000  
103/103 [=====] - 0s 19us/step - loss: 160.8677 - acc: 0.0971 - mean\_s  
Epoch 4814/5000  
103/103 [=====] - 0s 19us/step - loss: 160.7514 - acc: 0.0971 - mean\_s  
Epoch 4815/5000  
103/103 [=====] - 0s 29us/step - loss: 160.6224 - acc: 0.0971 - mean\_s  
Epoch 4816/5000  
103/103 [=====] - 0s 29us/step - loss: 160.4903 - acc: 0.0971 - mean\_s  
Epoch 4817/5000  
103/103 [=====] - 0s 29us/step - loss: 160.3578 - acc: 0.0971 - mean\_s  
Epoch 4818/5000  
103/103 [=====] - 0s 29us/step - loss: 160.2214 - acc: 0.0971 - mean\_s  
Epoch 4819/5000  
103/103 [=====] - 0s 19us/step - loss: 160.1206 - acc: 0.0874 - mean\_s  
Epoch 4820/5000  
103/103 [=====] - 0s 39us/step - loss: 160.0000 - acc: 0.0874 - mean\_s  
Epoch 4821/5000  
103/103 [=====] - 0s 29us/step - loss: 159.8559 - acc: 0.0971 - mean\_s  
Epoch 4822/5000  
103/103 [=====] - 0s 19us/step - loss: 159.7374 - acc: 0.0971 - mean\_s  
Epoch 4823/5000  
103/103 [=====] - 0s 29us/step - loss: 159.6311 - acc: 0.0874 - mean\_s  
Epoch 4824/5000  
103/103 [=====] - 0s 19us/step - loss: 159.5025 - acc: 0.0874 - mean\_s  
Epoch 4825/5000  
103/103 [=====] - 0s 19us/step - loss: 159.3885 - acc: 0.0874 - mean\_s

Epoch 4826/5000  
103/103 [=====] - 0s 29us/step - loss: 159.2860 - acc: 0.0971 - mean\_s  
Epoch 4827/5000  
103/103 [=====] - 0s 19us/step - loss: 159.1442 - acc: 0.1068 - mean\_s  
Epoch 4828/5000  
103/103 [=====] - 0s 29us/step - loss: 159.0426 - acc: 0.0971 - mean\_s  
Epoch 4829/5000  
103/103 [=====] - 0s 29us/step - loss: 158.9273 - acc: 0.0971 - mean\_s  
Epoch 4830/5000  
103/103 [=====] - 0s 29us/step - loss: 158.7841 - acc: 0.0874 - mean\_s  
Epoch 4831/5000  
103/103 [=====] - 0s 19us/step - loss: 158.6644 - acc: 0.0874 - mean\_s  
Epoch 4832/5000  
103/103 [=====] - 0s 19us/step - loss: 158.5682 - acc: 0.0971 - mean\_s  
Epoch 4833/5000  
103/103 [=====] - 0s 19us/step - loss: 158.4319 - acc: 0.0971 - mean\_s  
Epoch 4834/5000  
103/103 [=====] - 0s 19us/step - loss: 158.2931 - acc: 0.0874 - mean\_s  
Epoch 4835/5000  
103/103 [=====] - 0s 29us/step - loss: 158.2074 - acc: 0.0874 - mean\_s  
Epoch 4836/5000  
103/103 [=====] - 0s 29us/step - loss: 158.0867 - acc: 0.0874 - mean\_s  
Epoch 4837/5000  
103/103 [=====] - 0s 29us/step - loss: 157.9733 - acc: 0.1068 - mean\_s  
Epoch 4838/5000  
103/103 [=====] - 0s 29us/step - loss: 157.8046 - acc: 0.1068 - mean\_s  
Epoch 4839/5000  
103/103 [=====] - 0s 29us/step - loss: 157.6971 - acc: 0.0874 - mean\_s  
Epoch 4840/5000  
103/103 [=====] - 0s 19us/step - loss: 157.5930 - acc: 0.0874 - mean\_s  
Epoch 4841/5000  
103/103 [=====] - 0s 19us/step - loss: 157.4648 - acc: 0.0874 - mean\_s  
Epoch 4842/5000  
103/103 [=====] - 0s 29us/step - loss: 157.3510 - acc: 0.1068 - mean\_s  
Epoch 4843/5000  
103/103 [=====] - 0s 29us/step - loss: 157.2442 - acc: 0.1068 - mean\_s  
Epoch 4844/5000  
103/103 [=====] - 0s 19us/step - loss: 157.1180 - acc: 0.1068 - mean\_s  
Epoch 4845/5000  
103/103 [=====] - 0s 29us/step - loss: 156.9796 - acc: 0.1068 - mean\_s  
Epoch 4846/5000  
103/103 [=====] - 0s 29us/step - loss: 156.8595 - acc: 0.0971 - mean\_s  
Epoch 4847/5000  
103/103 [=====] - 0s 29us/step - loss: 156.7495 - acc: 0.0777 - mean\_s  
Epoch 4848/5000  
103/103 [=====] - 0s 29us/step - loss: 156.6376 - acc: 0.0971 - mean\_s  
Epoch 4849/5000  
103/103 [=====] - 0s 19us/step - loss: 156.5019 - acc: 0.0971 - mean\_s



Epoch 4850/5000  
103/103 [=====] - 0s 29us/step - loss: 156.4023 - acc: 0.1068 - mean\_s  
Epoch 4851/5000  
103/103 [=====] - 0s 19us/step - loss: 156.2876 - acc: 0.0971 - mean\_s  
Epoch 4852/5000  
103/103 [=====] - 0s 29us/step - loss: 156.1631 - acc: 0.0971 - mean\_s  
Epoch 4853/5000  
103/103 [=====] - 0s 29us/step - loss: 156.0654 - acc: 0.0874 - mean\_s  
Epoch 4854/5000  
103/103 [=====] - 0s 29us/step - loss: 155.9556 - acc: 0.0874 - mean\_s  
Epoch 4855/5000  
103/103 [=====] - 0s 29us/step - loss: 155.8223 - acc: 0.0874 - mean\_s  
Epoch 4856/5000  
103/103 [=====] - 0s 19us/step - loss: 155.7062 - acc: 0.0874 - mean\_s  
Epoch 4857/5000  
103/103 [=====] - 0s 29us/step - loss: 155.5972 - acc: 0.0874 - mean\_s  
Epoch 4858/5000  
103/103 [=====] - 0s 19us/step - loss: 155.4666 - acc: 0.0874 - mean\_s  
Epoch 4859/5000  
103/103 [=====] - 0s 19us/step - loss: 155.3727 - acc: 0.0971 - mean\_s  
Epoch 4860/5000  
103/103 [=====] - 0s 19us/step - loss: 155.2425 - acc: 0.0971 - mean\_s  
Epoch 4861/5000  
103/103 [=====] - 0s 29us/step - loss: 155.1372 - acc: 0.0971 - mean\_s  
Epoch 4862/5000  
103/103 [=====] - 0s 29us/step - loss: 155.0274 - acc: 0.0874 - mean\_s  
Epoch 4863/5000  
103/103 [=====] - 0s 19us/step - loss: 154.9144 - acc: 0.0874 - mean\_s  
Epoch 4864/5000  
103/103 [=====] - 0s 19us/step - loss: 154.7981 - acc: 0.0971 - mean\_s  
Epoch 4865/5000  
103/103 [=====] - 0s 29us/step - loss: 154.6831 - acc: 0.0971 - mean\_s  
Epoch 4866/5000  
103/103 [=====] - 0s 29us/step - loss: 154.5811 - acc: 0.0971 - mean\_s  
Epoch 4867/5000  
103/103 [=====] - 0s 19us/step - loss: 154.4845 - acc: 0.0971 - mean\_s  
Epoch 4868/5000  
103/103 [=====] - 0s 19us/step - loss: 154.3926 - acc: 0.0971 - mean\_s  
Epoch 4869/5000  
103/103 [=====] - 0s 19us/step - loss: 154.2564 - acc: 0.0971 - mean\_s  
Epoch 4870/5000  
103/103 [=====] - 0s 29us/step - loss: 154.1484 - acc: 0.0874 - mean\_s  
Epoch 4871/5000  
103/103 [=====] - 0s 19us/step - loss: 154.0489 - acc: 0.0874 - mean\_s  
Epoch 4872/5000  
103/103 [=====] - 0s 19us/step - loss: 153.9572 - acc: 0.0874 - mean\_s  
Epoch 4873/5000  
103/103 [=====] - 0s 29us/step - loss: 153.8548 - acc: 0.0777 - mean\_s

Epoch 4874/5000  
103/103 [=====] - 0s 29us/step - loss: 153.7372 - acc: 0.0777 - mean\_s  
Epoch 4875/5000  
103/103 [=====] - 0s 29us/step - loss: 153.6223 - acc: 0.0874 - mean\_s  
Epoch 4876/5000  
103/103 [=====] - 0s 29us/step - loss: 153.4966 - acc: 0.0874 - mean\_s  
Epoch 4877/5000  
103/103 [=====] - 0s 29us/step - loss: 153.3941 - acc: 0.0874 - mean\_s  
Epoch 4878/5000  
103/103 [=====] - 0s 29us/step - loss: 153.2966 - acc: 0.0874 - mean\_s  
Epoch 4879/5000  
103/103 [=====] - 0s 19us/step - loss: 153.1714 - acc: 0.0874 - mean\_s  
Epoch 4880/5000  
103/103 [=====] - 0s 19us/step - loss: 153.0586 - acc: 0.0874 - mean\_s  
Epoch 4881/5000  
103/103 [=====] - 0s 19us/step - loss: 152.9590 - acc: 0.0874 - mean\_s  
Epoch 4882/5000  
103/103 [=====] - 0s 29us/step - loss: 152.8609 - acc: 0.0874 - mean\_s  
Epoch 4883/5000  
103/103 [=====] - 0s 29us/step - loss: 152.7549 - acc: 0.0874 - mean\_s  
Epoch 4884/5000  
103/103 [=====] - 0s 19us/step - loss: 152.6488 - acc: 0.0874 - mean\_s  
Epoch 4885/5000  
103/103 [=====] - 0s 19us/step - loss: 152.5496 - acc: 0.0874 - mean\_s  
Epoch 4886/5000  
103/103 [=====] - 0s 19us/step - loss: 152.4529 - acc: 0.0874 - mean\_s  
Epoch 4887/5000  
103/103 [=====] - 0s 19us/step - loss: 152.3533 - acc: 0.0874 - mean\_s  
Epoch 4888/5000  
103/103 [=====] - 0s 29us/step - loss: 152.2449 - acc: 0.0777 - mean\_s  
Epoch 4889/5000  
103/103 [=====] - 0s 29us/step - loss: 152.1414 - acc: 0.0777 - mean\_s  
Epoch 4890/5000  
103/103 [=====] - 0s 29us/step - loss: 152.0379 - acc: 0.0777 - mean\_s  
Epoch 4891/5000  
103/103 [=====] - 0s 19us/step - loss: 151.9236 - acc: 0.0777 - mean\_s  
Epoch 4892/5000  
103/103 [=====] - 0s 19us/step - loss: 151.8103 - acc: 0.0777 - mean\_s  
Epoch 4893/5000  
103/103 [=====] - 0s 19us/step - loss: 151.7150 - acc: 0.0874 - mean\_s  
Epoch 4894/5000  
103/103 [=====] - 0s 29us/step - loss: 151.6111 - acc: 0.0874 - mean\_s  
Epoch 4895/5000  
103/103 [=====] - 0s 29us/step - loss: 151.5096 - acc: 0.0777 - mean\_s  
Epoch 4896/5000  
103/103 [=====] - 0s 19us/step - loss: 151.4051 - acc: 0.0777 - mean\_s  
Epoch 4897/5000  
103/103 [=====] - 0s 19us/step - loss: 151.2974 - acc: 0.0777 - mean\_s

Epoch 4898/5000  
103/103 [=====] - 0s 29us/step - loss: 151.2073 - acc: 0.0777 - mean\_s  
Epoch 4899/5000  
103/103 [=====] - 0s 19us/step - loss: 151.1109 - acc: 0.0777 - mean\_s  
Epoch 4900/5000  
103/103 [=====] - 0s 19us/step - loss: 151.0126 - acc: 0.0680 - mean\_s  
Epoch 4901/5000  
103/103 [=====] - 0s 19us/step - loss: 150.8862 - acc: 0.0680 - mean\_s  
Epoch 4902/5000  
103/103 [=====] - 0s 29us/step - loss: 150.7912 - acc: 0.0680 - mean\_s  
Epoch 4903/5000  
103/103 [=====] - 0s 19us/step - loss: 150.7166 - acc: 0.0680 - mean\_s  
Epoch 4904/5000  
103/103 [=====] - 0s 29us/step - loss: 150.6018 - acc: 0.0680 - mean\_s  
Epoch 4905/5000  
103/103 [=====] - 0s 29us/step - loss: 150.4925 - acc: 0.0680 - mean\_s  
Epoch 4906/5000  
103/103 [=====] - 0s 29us/step - loss: 150.4064 - acc: 0.0680 - mean\_s  
Epoch 4907/5000  
103/103 [=====] - 0s 19us/step - loss: 150.3058 - acc: 0.0680 - mean\_s  
Epoch 4908/5000  
103/103 [=====] - 0s 19us/step - loss: 150.2207 - acc: 0.0680 - mean\_s  
Epoch 4909/5000  
103/103 [=====] - 0s 29us/step - loss: 150.1124 - acc: 0.0680 - mean\_s  
Epoch 4910/5000  
103/103 [=====] - 0s 29us/step - loss: 149.9991 - acc: 0.0680 - mean\_s  
Epoch 4911/5000  
103/103 [=====] - 0s 19us/step - loss: 149.8992 - acc: 0.0680 - mean\_s  
Epoch 4912/5000  
103/103 [=====] - 0s 29us/step - loss: 149.8014 - acc: 0.0777 - mean\_s  
Epoch 4913/5000  
103/103 [=====] - 0s 19us/step - loss: 149.7007 - acc: 0.0680 - mean\_s  
Epoch 4914/5000  
103/103 [=====] - 0s 19us/step - loss: 149.5899 - acc: 0.0680 - mean\_s  
Epoch 4915/5000  
103/103 [=====] - 0s 19us/step - loss: 149.4731 - acc: 0.0680 - mean\_s  
Epoch 4916/5000  
103/103 [=====] - 0s 19us/step - loss: 149.3754 - acc: 0.0777 - mean\_s  
Epoch 4917/5000  
103/103 [=====] - 0s 29us/step - loss: 149.2734 - acc: 0.0680 - mean\_s  
Epoch 4918/5000  
103/103 [=====] - 0s 19us/step - loss: 149.1781 - acc: 0.0680 - mean\_s  
Epoch 4919/5000  
103/103 [=====] - 0s 29us/step - loss: 149.0662 - acc: 0.0680 - mean\_s  
Epoch 4920/5000  
103/103 [=====] - 0s 19us/step - loss: 148.9801 - acc: 0.0680 - mean\_s  
Epoch 4921/5000  
103/103 [=====] - 0s 19us/step - loss: 148.8765 - acc: 0.0583 - mean\_s

Epoch 4922/5000  
103/103 [=====] - 0s 19us/step - loss: 148.7685 - acc: 0.0583 - mean\_

Epoch 4923/5000  
103/103 [=====] - 0s 29us/step - loss: 148.6757 - acc: 0.0583 - mean\_

Epoch 4924/5000  
103/103 [=====] - 0s 19us/step - loss: 148.5716 - acc: 0.0583 - mean\_

Epoch 4925/5000  
103/103 [=====] - 0s 19us/step - loss: 148.4691 - acc: 0.0583 - mean\_

Epoch 4926/5000  
103/103 [=====] - 0s 19us/step - loss: 148.3855 - acc: 0.0680 - mean\_

Epoch 4927/5000  
103/103 [=====] - 0s 19us/step - loss: 148.2962 - acc: 0.0680 - mean\_

Epoch 4928/5000  
103/103 [=====] - 0s 29us/step - loss: 148.1933 - acc: 0.0583 - mean\_

Epoch 4929/5000  
103/103 [=====] - 0s 29us/step - loss: 148.0920 - acc: 0.0583 - mean\_

Epoch 4930/5000  
103/103 [=====] - 0s 29us/step - loss: 147.9989 - acc: 0.0485 - mean\_

Epoch 4931/5000  
103/103 [=====] - 0s 19us/step - loss: 147.8895 - acc: 0.0485 - mean\_

Epoch 4932/5000  
103/103 [=====] - 0s 19us/step - loss: 147.7799 - acc: 0.0583 - mean\_

Epoch 4933/5000  
103/103 [=====] - 0s 29us/step - loss: 147.7110 - acc: 0.0485 - mean\_

Epoch 4934/5000  
103/103 [=====] - 0s 29us/step - loss: 147.6035 - acc: 0.0485 - mean\_

Epoch 4935/5000  
103/103 [=====] - 0s 29us/step - loss: 147.4981 - acc: 0.0485 - mean\_

Epoch 4936/5000  
103/103 [=====] - 0s 29us/step - loss: 147.3982 - acc: 0.0485 - mean\_

Epoch 4937/5000  
103/103 [=====] - 0s 19us/step - loss: 147.3006 - acc: 0.0485 - mean\_

Epoch 4938/5000  
103/103 [=====] - 0s 29us/step - loss: 147.1959 - acc: 0.0485 - mean\_

Epoch 4939/5000  
103/103 [=====] - 0s 19us/step - loss: 147.1022 - acc: 0.0583 - mean\_

Epoch 4940/5000  
103/103 [=====] - 0s 19us/step - loss: 147.0035 - acc: 0.0485 - mean\_

Epoch 4941/5000  
103/103 [=====] - 0s 19us/step - loss: 146.9053 - acc: 0.0485 - mean\_

Epoch 4942/5000  
103/103 [=====] - 0s 39us/step - loss: 146.8168 - acc: 0.0485 - mean\_

Epoch 4943/5000  
103/103 [=====] - 0s 29us/step - loss: 146.7053 - acc: 0.0485 - mean\_

Epoch 4944/5000  
103/103 [=====] - 0s 19us/step - loss: 146.6150 - acc: 0.0485 - mean\_

Epoch 4945/5000  
103/103 [=====] - 0s 19us/step - loss: 146.5196 - acc: 0.0485 - mean\_

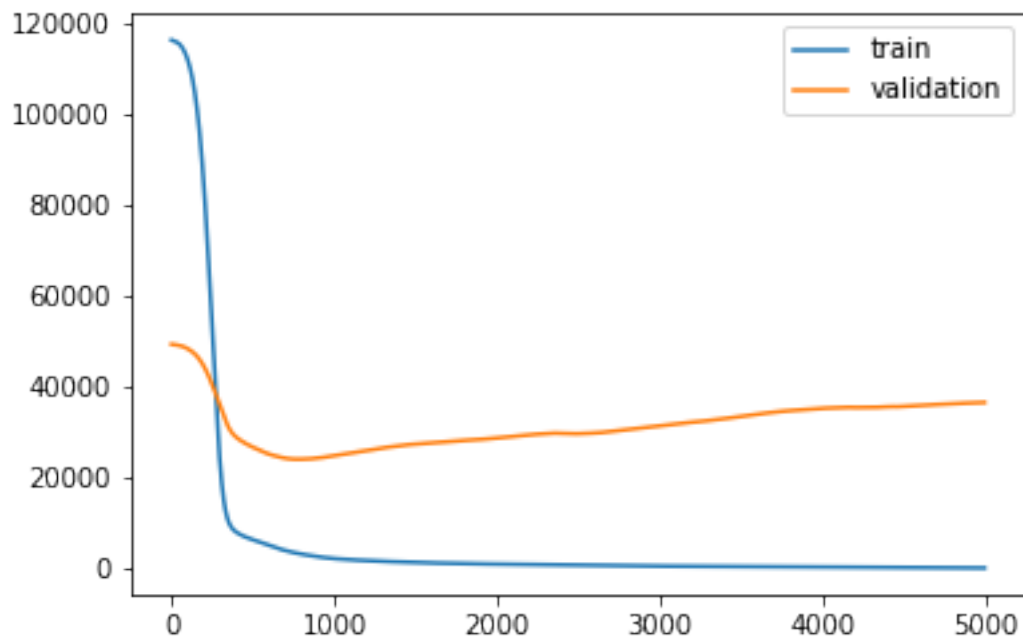
Epoch 4946/5000  
103/103 [=====] - 0s 29us/step - loss: 146.4357 - acc: 0.0583 - mean\_s  
Epoch 4947/5000  
103/103 [=====] - 0s 19us/step - loss: 146.3310 - acc: 0.0583 - mean\_s  
Epoch 4948/5000  
103/103 [=====] - 0s 19us/step - loss: 146.2358 - acc: 0.0485 - mean\_s  
Epoch 4949/5000  
103/103 [=====] - 0s 19us/step - loss: 146.1549 - acc: 0.0388 - mean\_s  
Epoch 4950/5000  
103/103 [=====] - 0s 29us/step - loss: 146.0540 - acc: 0.0388 - mean\_s  
Epoch 4951/5000  
103/103 [=====] - 0s 29us/step - loss: 145.9392 - acc: 0.0485 - mean\_s  
Epoch 4952/5000  
103/103 [=====] - 0s 29us/step - loss: 145.8781 - acc: 0.0485 - mean\_s  
Epoch 4953/5000  
103/103 [=====] - 0s 19us/step - loss: 145.7876 - acc: 0.0485 - mean\_s  
Epoch 4954/5000  
103/103 [=====] - 0s 19us/step - loss: 145.6776 - acc: 0.0388 - mean\_s  
Epoch 4955/5000  
103/103 [=====] - 0s 29us/step - loss: 145.5597 - acc: 0.0388 - mean\_s  
Epoch 4956/5000  
103/103 [=====] - 0s 29us/step - loss: 145.4874 - acc: 0.0485 - mean\_s  
Epoch 4957/5000  
103/103 [=====] - 0s 29us/step - loss: 145.4014 - acc: 0.0485 - mean\_s  
Epoch 4958/5000  
103/103 [=====] - 0s 29us/step - loss: 145.3063 - acc: 0.0485 - mean\_s  
Epoch 4959/5000  
103/103 [=====] - 0s 19us/step - loss: 145.2029 - acc: 0.0485 - mean\_s  
Epoch 4960/5000  
103/103 [=====] - 0s 29us/step - loss: 145.0815 - acc: 0.0485 - mean\_s  
Epoch 4961/5000  
103/103 [=====] - 0s 29us/step - loss: 145.0013 - acc: 0.0583 - mean\_s  
Epoch 4962/5000  
103/103 [=====] - 0s 19us/step - loss: 144.9252 - acc: 0.0485 - mean\_s  
Epoch 4963/5000  
103/103 [=====] - 0s 29us/step - loss: 144.8294 - acc: 0.0388 - mean\_s  
Epoch 4964/5000  
103/103 [=====] - 0s 29us/step - loss: 144.7277 - acc: 0.0485 - mean\_s  
Epoch 4965/5000  
103/103 [=====] - 0s 19us/step - loss: 144.6229 - acc: 0.0485 - mean\_s  
Epoch 4966/5000  
103/103 [=====] - 0s 29us/step - loss: 144.5194 - acc: 0.0583 - mean\_s  
Epoch 4967/5000  
103/103 [=====] - 0s 29us/step - loss: 144.4296 - acc: 0.0583 - mean\_s  
Epoch 4968/5000  
103/103 [=====] - 0s 19us/step - loss: 144.3446 - acc: 0.0485 - mean\_s  
Epoch 4969/5000  
103/103 [=====] - 0s 29us/step - loss: 144.2392 - acc: 0.0485 - mean\_s

Epoch 4970/5000  
103/103 [=====] - 0s 29us/step - loss: 144.1484 - acc: 0.0583 - mean\_s  
Epoch 4971/5000  
103/103 [=====] - 0s 19us/step - loss: 144.0695 - acc: 0.0583 - mean\_s  
Epoch 4972/5000  
103/103 [=====] - 0s 29us/step - loss: 143.9677 - acc: 0.0485 - mean\_s  
Epoch 4973/5000  
103/103 [=====] - 0s 29us/step - loss: 143.8578 - acc: 0.0485 - mean\_s  
Epoch 4974/5000  
103/103 [=====] - 0s 29us/step - loss: 143.7675 - acc: 0.0583 - mean\_s  
Epoch 4975/5000  
103/103 [=====] - 0s 39us/step - loss: 143.6666 - acc: 0.0485 - mean\_s  
Epoch 4976/5000  
103/103 [=====] - 0s 19us/step - loss: 143.5834 - acc: 0.0485 - mean\_s  
Epoch 4977/5000  
103/103 [=====] - 0s 19us/step - loss: 143.4801 - acc: 0.0485 - mean\_s  
Epoch 4978/5000  
103/103 [=====] - 0s 19us/step - loss: 143.4094 - acc: 0.0485 - mean\_s  
Epoch 4979/5000  
103/103 [=====] - 0s 29us/step - loss: 143.3265 - acc: 0.0485 - mean\_s  
Epoch 4980/5000  
103/103 [=====] - 0s 19us/step - loss: 143.2180 - acc: 0.0485 - mean\_s  
Epoch 4981/5000  
103/103 [=====] - 0s 29us/step - loss: 143.1451 - acc: 0.0485 - mean\_s  
Epoch 4982/5000  
103/103 [=====] - 0s 29us/step - loss: 143.0325 - acc: 0.0485 - mean\_s  
Epoch 4983/5000  
103/103 [=====] - 0s 19us/step - loss: 142.9569 - acc: 0.0485 - mean\_s  
Epoch 4984/5000  
103/103 [=====] - 0s 19us/step - loss: 142.8578 - acc: 0.0485 - mean\_s  
Epoch 4985/5000  
103/103 [=====] - 0s 19us/step - loss: 142.7970 - acc: 0.0485 - mean\_s  
Epoch 4986/5000  
103/103 [=====] - 0s 19us/step - loss: 142.7045 - acc: 0.0485 - mean\_s  
Epoch 4987/5000  
103/103 [=====] - 0s 29us/step - loss: 142.5931 - acc: 0.0485 - mean\_s  
Epoch 4988/5000  
103/103 [=====] - 0s 19us/step - loss: 142.4919 - acc: 0.0485 - mean\_s  
Epoch 4989/5000  
103/103 [=====] - 0s 29us/step - loss: 142.4158 - acc: 0.0485 - mean\_s  
Epoch 4990/5000  
103/103 [=====] - 0s 29us/step - loss: 142.3425 - acc: 0.0485 - mean\_s  
Epoch 4991/5000  
103/103 [=====] - 0s 19us/step - loss: 142.2415 - acc: 0.0485 - mean\_s  
Epoch 4992/5000  
103/103 [=====] - 0s 19us/step - loss: 142.1315 - acc: 0.0583 - mean\_s  
Epoch 4993/5000  
103/103 [=====] - 0s 29us/step - loss: 142.0191 - acc: 0.0485 - mean\_s

```

Epoch 4994/5000
103/103 [=====] - 0s 29us/step - loss: 141.9615 - acc: 0.0485 - mean_s
Epoch 4995/5000
103/103 [=====] - 0s 29us/step - loss: 141.8583 - acc: 0.0485 - mean_s
Epoch 4996/5000
103/103 [=====] - 0s 29us/step - loss: 141.7303 - acc: 0.0485 - mean_s
Epoch 4997/5000
103/103 [=====] - 0s 19us/step - loss: 141.6852 - acc: 0.0583 - mean_s
Epoch 4998/5000
103/103 [=====] - 0s 29us/step - loss: 141.6073 - acc: 0.0485 - mean_s
Epoch 4999/5000
103/103 [=====] - 0s 19us/step - loss: 141.5020 - acc: 0.0485 - mean_s
Epoch 5000/5000
103/103 [=====] - 0s 19us/step - loss: 141.3854 - acc: 0.0485 - mean_s

```



```

In [18]: predictions1 = saved_model1.predict(standardized_X_test)
         predictions2 = saved_model2.predict(standardized_X_test)
         predictions3 = saved_model3.predict(standardized_X_test)

         # evaluate the model
         train_acc1 = saved_model1.evaluate(standardized_X_train, Y_train)
         train_acc2 = saved_model2.evaluate(standardized_X_train, Y_train)
         train_acc3 = saved_model3.evaluate(standardized_X_train, Y_train)
         test_acc = saved_model3.evaluate(standardized_X_test, Y_test)

```

```

print(saved_model1.metrics_names)
print('Model 1: ')
print(train_acc1)
print('Model 2: ')
print(train_acc2)
print('Model 3: ')
print(train_acc3)
print('Test: ')
print(test_acc)

148/148 [=====] - 0s 777us/step
148/148 [=====] - 0s 797us/step
148/148 [=====] - 0s 891us/step
150/150 [=====] - 0s 33us/step
['loss', 'acc', 'mean_squared_error', 'mean_absolute_error']
Model 1:
[14735.200531830658, 0.006756756756756757, 14735.200531830658, 69.97064162589409]
Model 2:
[7936.863597972973, 0.013513513513513514, 7936.863597972973, 51.71497695510452]
Model 3:
[11220.086471970017, 0.033783783783783786, 11220.086471970017, 51.3153498881572]
Test:
[39269.153619791665, 0.0, 39269.153619791665, 153.22377176920574]

```

```

In [19]: plt.figure(figsize=(4,3))
plt.scatter(Y_test[:200],predictions1[:200])
plt.xlabel('Y Test')
plt.ylabel('Model 1 Predicted Y')

plt.figure(figsize=(4,3))
plt.scatter(Y_test[:200],predictions2[:200])
plt.xlabel('Y Test')
plt.ylabel('Model 2 Predicted Y')

plt.figure(figsize=(4,3))
plt.scatter(Y_test[:200],predictions3[:200])
plt.xlabel('Y Test')
plt.ylabel('Model 3 Predicted Y')

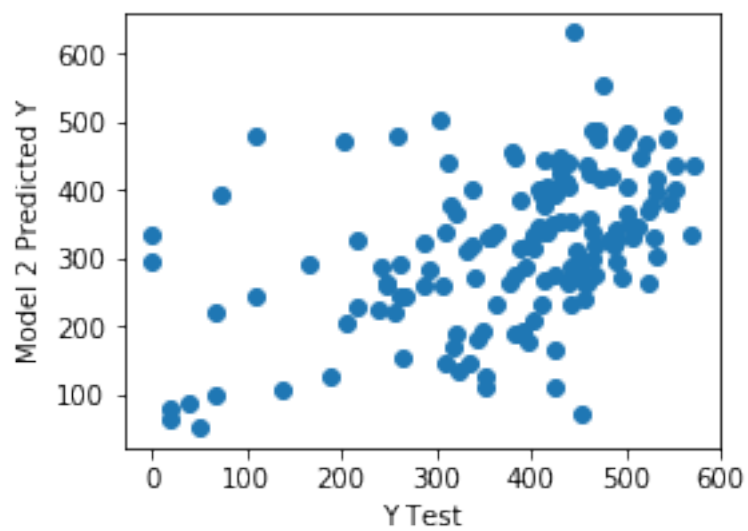
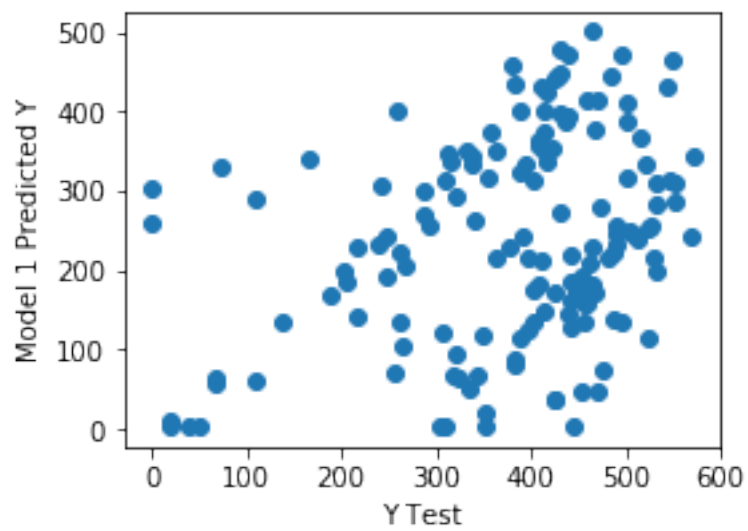
```

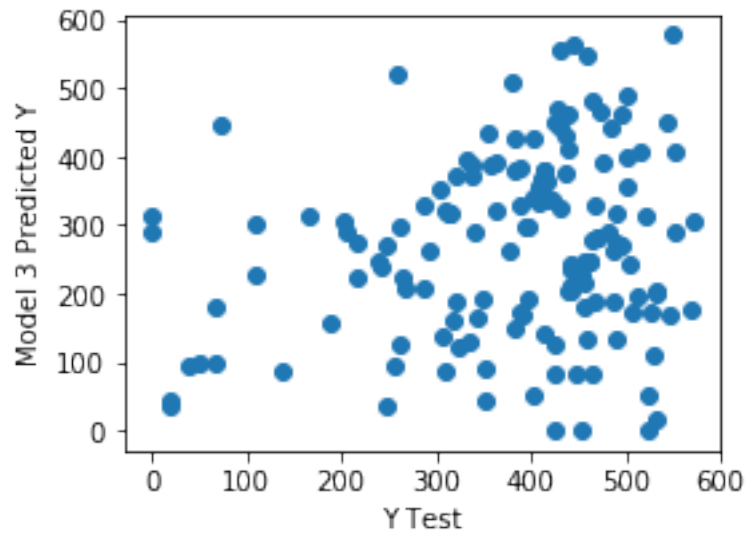
```

Out[19]: Text(0, 0.5, 'Model 3 Predicted Y')

```







```
In [20]: pyplot.plot(predictions1, label='model1')
pyplot.plot(Y_test, label='test')
pyplot.legend()
pyplot.show()

pyplot.plot(predictions2, label='model2')
pyplot.plot(Y_test, label='test')
pyplot.legend()
pyplot.show()

pyplot.plot(predictions3, label='model3')
pyplot.plot(Y_test, label='test')
pyplot.legend()
pyplot.show()
```

