

NOR-RN

May 9, 2024

1 *Deep Vision para tareas de clasificación*

1.1 *By Noelia Otazo Rojo*

1.1.1 Objetivos

Evaluar y comparar estrategias para la **clasificación de imágenes**, la solución deberá estar basada en el **aprendizaje profundo** (Redes Neuronales Convolucionales CNNs).

1.1.2 Contenidos

1. **Carga** del conjunto de datos
2. **Inspección** del conjunto de datos
3. **Acondicionamiento** del conjunto de datos
4. Desarrollo de la **arquitectura** de red neuronal y **entrenamiento** de la solución
5. **Monitorización** del proceso de **entrenamiento** para la toma de decisiones
6. **Evaluación** del modelo predictivo.

1.1.3 Fuente de datos

Enlace al dataset que voy a utilizar para llevar a cabo el siguiente proyecto: [Cancer Detection](#)

1.2 0. Preparación del proyecto.

En esta sección añadiremos las sentencias de instalación y las importaciones de las librerías necesarias para el desarrollo del proyecto.

```
[ ]: # Solo ejecutar una vez
    #!pip install opencv-python
```

A continuación será necesario importar las librerías.

```
[ ]: # Numpy
import numpy as np
from numpy.random import seed

# OpenCV to process images
import cv2

# Necesario para la transformación de las imagenes de tif a png
```

```

import pathlib
from PIL import Image

# Directory indexes
import os
from os import listdir

import shutil
import random
from pathlib import Path
from pprint import pprint
from collections import defaultdict

# Matplotlib
import matplotlib.pyplot as plt
import seaborn as sns
from tqdm import tqdm

# Pandas
import pandas as pd

# Tensorflow
import tensorflow as tf
from tensorflow import keras
from tensorflow.keras import backend as K
from tensorflow.keras import layers
from tensorflow.keras.utils import to_categorical
from tensorflow.keras.models import Model, Sequential
from tensorflow.keras.models import Sequential
from tensorflow.keras.callbacks import EarlyStopping
from tensorflow.keras.optimizers import SGD, Adam
from tensorflow.keras.applications import imagenet_utils
from tensorflow.keras.preprocessing import image_dataset_from_directory
from tensorflow.keras.preprocessing.image import ImageDataGenerator
from tensorflow.keras.layers import Conv2D, MaxPooling2D, Flatten, Dense,
↳ Dropout

# Sklearn
from sklearn.utils import class_weight
from sklearn.metrics import classification_report
from sklearn.preprocessing import LabelBinarizer
from sklearn.model_selection import train_test_split
from sklearn.model_selection import StratifiedShuffleSplit

# Ploteado del esquema gráfico del modelo
# from keras.utils.vis_utils import plot_model

```

WARNING:tensorflow:From d:\anaconda\Lib\site-packages\keras\src\losses.py:2976:

The name `tf.losses.sparse_softmax_cross_entropy` is deprecated. Please use `tf.compat.v1.losses.sparse_softmax_cross_entropy` instead.

1.3 1. Conjunto de datos.

En esta sección cargaremos el contenido del dataset para su posterior uso.

1.3.1 1.1 Carga del conjunto de datos.

De este modo tendremos ya almacenado en variables las ubicaciones de los ficheros de labels así como la ruta a la carpeta que contiene las imágenes.

```
[ ]: # Data
test_data_path = 'histopathologic-cancer-detection/test'
train_data_path = 'histopathologic-cancer-detection/train'
train_labels = pd.read_csv('histopathologic-cancer-detection/train_labels.csv')
validation_labels = pd.read_csv('histopathologic-cancer-detection/
    ↪validation_labels.csv')

# Obtiene los nombres de clase únicos como una lista
class_names = train_labels['label'].unique().tolist()

# Asegúrate de que los nombres de clase sean strings si es necesario
class_names = [str(name) for name in class_names]
print(train_labels.head())
print(validation_labels.head())
```

| | id | label |
|---|--|-------|
| 0 | f38a6374c348f90b587e046aac6079959adf3835 | 0 |
| 1 | c18f2d887b7ae4f6742ee445113fa1aef383ed77 | 1 |
| 2 | 755db6279dae599ebb4d39a9123cce439965282d | 0 |
| 3 | bc3f0c64fb968ff4a8bd33af6971ecae77c75e08 | 0 |
| 4 | 068aba587a4950175d04c680d38943fd488d6a9d | 0 |

| | id | label |
|---|--|-------|
| 0 | 0b2ea2a822ad23fdb1b5dd26653da899fbd2c0d5 | 0 |
| 1 | 95596b92e5066c5c52466c90b69ff089b39f2737 | 0 |
| 2 | 248e6738860e2ebcf6258cdc1f32f299e0c76914 | 0 |
| 3 | 2c35657e312966e9294eac6841726ff3a748febf | 0 |
| 4 | 145782eb7caa1c516acbe2eda34d9a3f31c41fd6 | 0 |

1.3.2 1.2 Distribución train / test

A continuación generaremos un gráfico para comprobar la distribución del contenido de train/test, ya que venía ya distribuido desde Kaggle, por lo que no será necesario hacer un nuevo split de los datos.

```
[ ]: # Crea un Path object para el directorio de entrenamiento
paths_train_dataset = list(Path(train_data_path).rglob('*.tif'))
```

```

paths_test_dataset = list(Path(test_data_path).rglob('*.tif'))

# Combinamos ambos paths para conseguir el conteo total
paths_dataset = paths_train_dataset + paths_test_dataset

dict_dataset = defaultdict(list)

# Agrupa las imágenes por su carpeta (train o test)
for p in paths_dataset:
    dict_dataset[p.parent.name].append(str(p))

# Imprime la cantidad y la proporción de imágenes por carpeta
for k in dict_dataset.keys():
    print(f'La carpeta {k} tiene {len(dict_dataset[k])} elementos con
    ↪proporción {len(dict_dataset[k])/len(paths_dataset):.2f}')

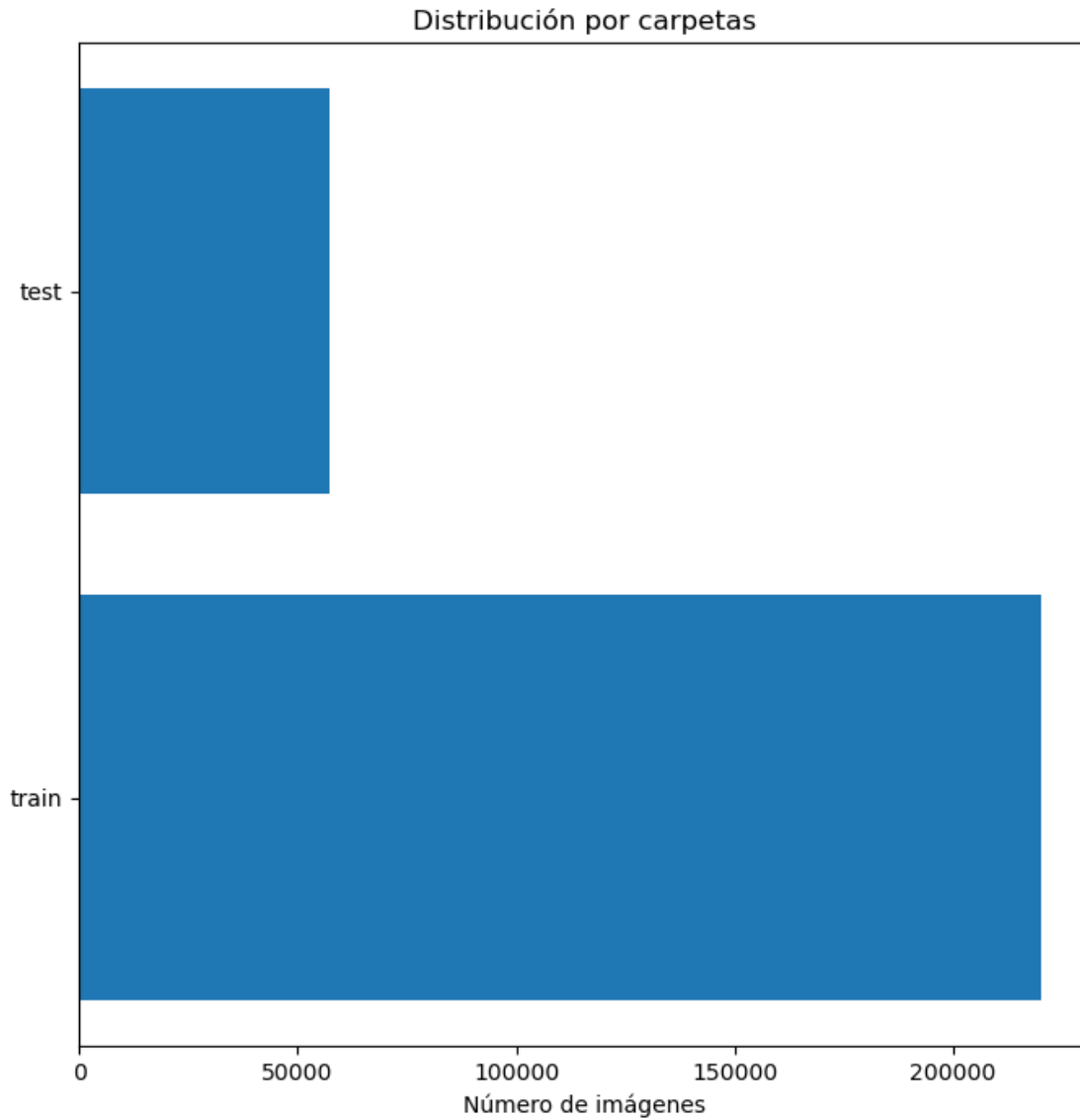
# Configura los parámetros de la figura para matplotlib
plt.rcParams["figure.figsize"] = (8, 8)

# Crea el gráfico de barras horizontal
plt.barh(y=list(dict_dataset.keys()), width=[len(dict_dataset[k]) for k in
    ↪dict_dataset.keys()])
plt.title('Distribución por carpetas')
plt.xlabel('Número de imágenes')
plt.show()

```

La carpeta train tiene 220025 elementos con proporción 0.79

La carpeta test tiene 57458 elementos con proporción 0.21



La misma comprobación pero en un gráfico de sectores.

```
[ ]: names_to_index = {k: i for i, k in enumerate(dict_dataset.keys())}
names_proportion = {k: len(dict_dataset[k])/len(paths_dataset) for k in dict_dataset.keys()}
print('Los índices por clase son: ')
pprint(names_to_index)
print('\n')
print('La distribución de los datos por clase es:')
pprint(names_proportion)

plt.pie(names_proportion.values(), labels=names_proportion.keys())
```

```
plt.title('Distribución de los datos en el dataset')  
plt.show()
```

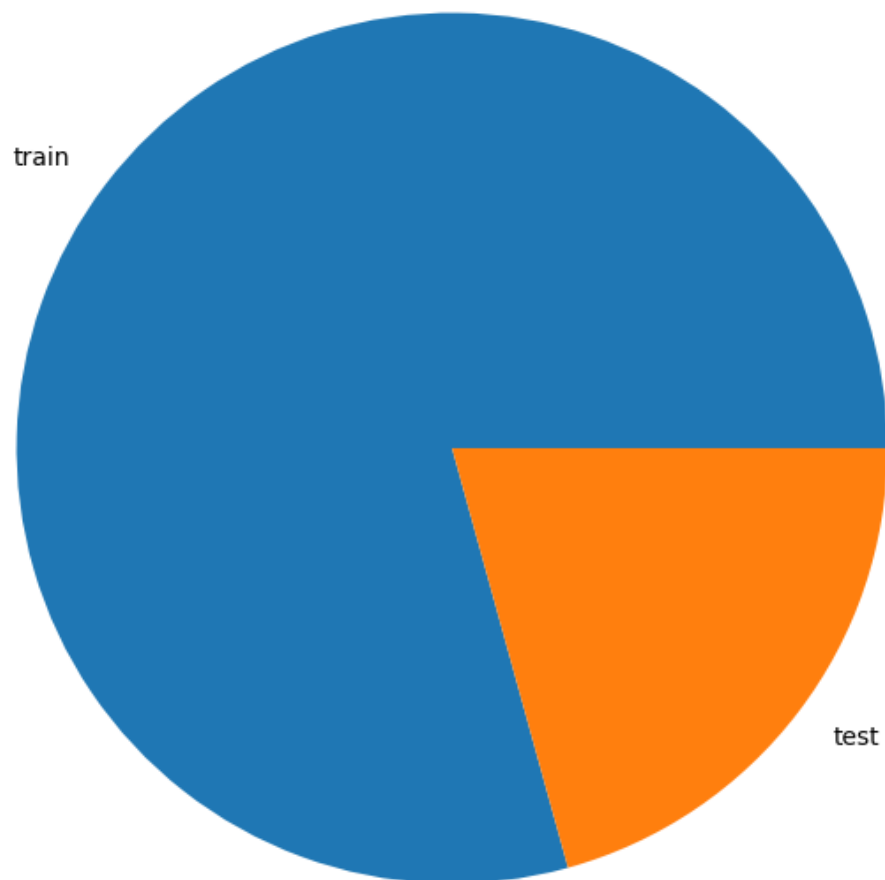
Los índices por clase son:

```
{'test': 1, 'train': 0}
```

La distribución de los datos por clase es:

```
{'test': 0.20706854113585338, 'train': 0.7929314588641466}
```

Distribución de los datos en el dataset

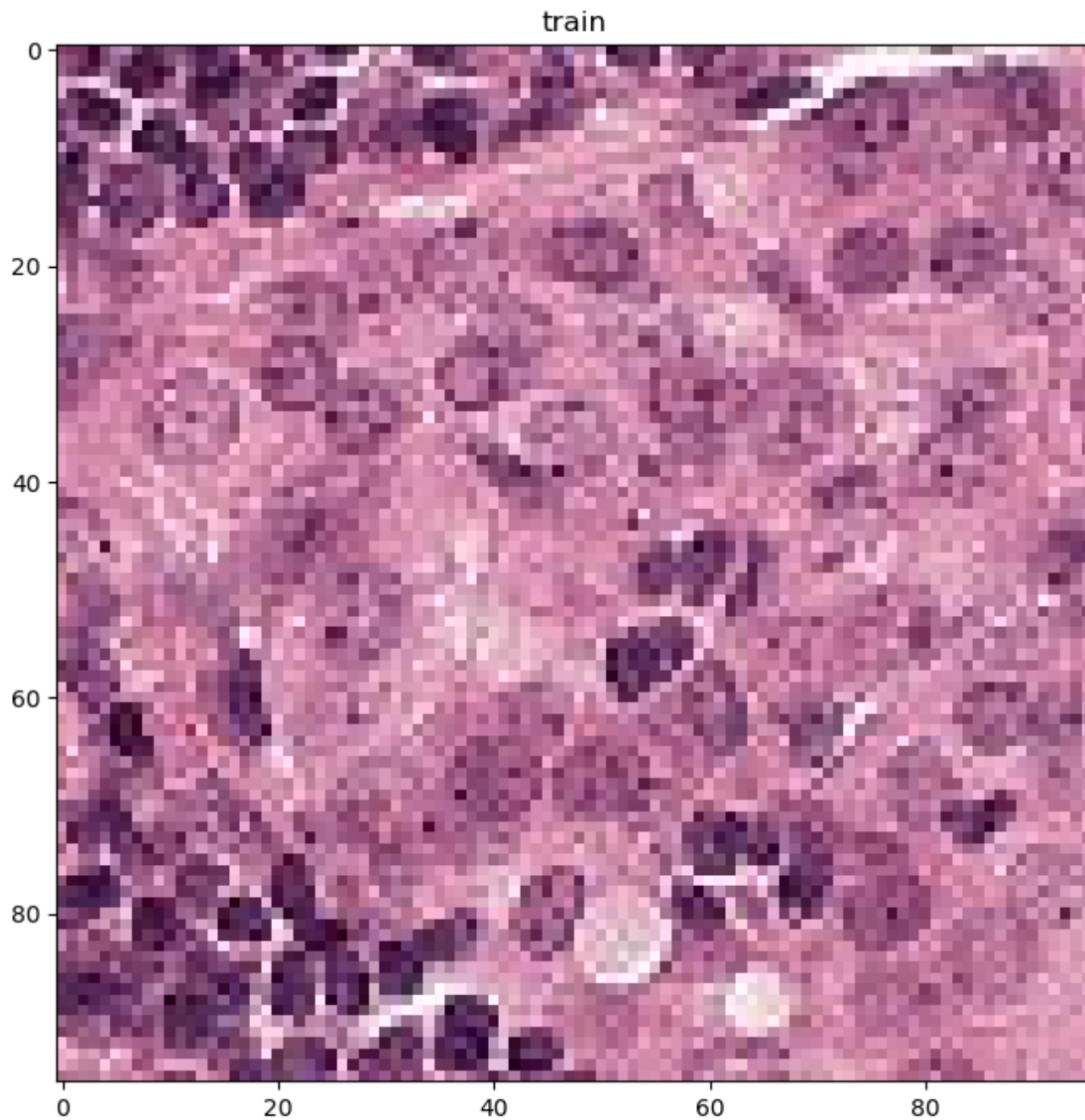


1.3.3 1.3 Visualización de los datos

Comprobamos que los datos son accesibles y que los podemos mostrar.

```
[ ]: sample_path = random.choice(paths_dataset)

plt.imshow(cv2.imread(str(sample_path))[:, :, -1])
plt.title(sample_path.parent.name)
plt.show()
```



1.3.4 1.4 Formateo de las imágenes

Dado que las imágenes se encuentran en un formato .tif y para poder procesarlas necesitaremos un formato que esté aceptado por Tensorflow, las transformaremos a imágenes .png

```
[ ]: # Define la ruta de origen y destino
src_path = pathlib.Path('histopathologic-cancer-detection/train')
def convert_image(src_path):
    dest_path = pathlib.Path('histopathologic-cancer-detection/train_converted')

    # Crea el directorio de destino si no existe
    dest_path.mkdir(parents=True, exist_ok=True)

    # Convierte cada archivo .tif a .png
    for tif_image_path in src_path.glob('*.tif'):
        # Cargar la imagen .tif
        image = Image.open(tif_image_path)
        # Definir el nombre de archivo de destino con la extensión .png
        dest_image_path = dest_path / (tif_image_path.stem + '.png')
        # Guardar la imagen en formato .png
        image.save(dest_image_path, 'PNG')

    # Ejecutar solo una vez
    # convert_image(src_path)
```

Haremos lo mismo para test.

```
[ ]: # Define la ruta de origen y destino
test_path = pathlib.Path('histopathologic-cancer-detection/test')

def convert_image_test(src_path):
    dest_path = pathlib.Path('histopathologic-cancer-detection/test_converted')

    # Crea el directorio de destino si no existe
    dest_path.mkdir(parents=True, exist_ok=True)

    # Convierte cada archivo .tif a .png
    for tif_image_path in src_path.glob('*.tif'):
        # Cargar la imagen .tif
        image = Image.open(tif_image_path)
        # Definir el nombre de archivo de destino con la extensión .png
        dest_image_path = dest_path / (tif_image_path.stem + '.png')
        # Guardar la imagen en formato .png
        image.save(dest_image_path, 'PNG')

    # Ejecutar solo una vez
    # convert_image_test(test_path)
```

Comprobamos si existen imágenes en el nuevo directorio de train.

```
[ ]: # TRAIN
train_path = pathlib.Path('histopathologic-cancer-detection/train_converted')
```



```

# Comprobar si existen imágenes en el directorio
png_images = list(train_path.glob('*.png'))
if not png_images:
    print(f"No se encontraron imágenes en {train_path}.")
else:
    print(f"Se encontraron {len(png_images)} imágenes en {train_path}.")

# Crea un dataset a partir de los archivos de imagen
train_dataset = tf.data.Dataset.list_files(str(train_path/'*.png'),
    ↪shuffle=True)

print(train_dataset)

```

Se encontraron 220025 imágenes en histopathologic-cancer-detection\train_converted.

```
<_ShuffleDataset element_spec=TensorSpec(shape=(), dtype=tf.string, name=None)>
```

Comprobamos si existen imágenes en el nuevo directorio de test.

```

[ ]: # TEST
test_path = pathlib.Path('histopathologic-cancer-detection/test_converted')

# Comprobar si existen imágenes en el directorio
png_images = list(test_path.glob('*.png'))
if not png_images:
    print(f"No se encontraron imágenes en {test_path}.")
else:
    print(f"Se encontraron {len(png_images)} imágenes en {test_path}.")

# Crea un dataset a partir de los archivos de imagen
test_dataset = tf.data.Dataset.list_files(str(test_path/'*.png'), shuffle=True)

print(test_dataset)

```

Se encontraron 57458 imágenes en histopathologic-cancer-detection\test_converted.

```
<_ShuffleDataset element_spec=TensorSpec(shape=(), dtype=tf.string, name=None)>
```

1.3.5 1.5 Dataframe

Este proceso fue necesario llevarlo a cabo mediante etapas ya que el rendimiento del PC sobre el que se realizó el proceso no permitía cargar todos los archivos de imagen de una única vez.

Creación del dataframe de train.

```

[ ]: # Rutas a los directorios y archivos
train_dir = 'histopathologic-cancer-detection/train_converted'
train_labels_csv = 'histopathologic-cancer-detection/train_labels.csv'

```

```

# Cargar las etiquetas
labels_df = pd.read_csv(train_labels_csv)
labels_df['id'] = labels_df['id'].apply(lambda x: x + '.png') # Asegurarte de
    ↳que los IDs tienen la extensión .png

# Crear un generador de imágenes que también realiza la normalización de las
    ↳mismas
datagen = ImageDataGenerator(rescale=1./255)

# Este generador carga las imágenes directamente del disco en lotes, por lo que
    ↳no es necesario cargar todas las imágenes en la memoria a la vez
train_generator = datagen.flow_from_dataframe(
    dataframe=labels_df,
    directory=train_dir,
    x_col='id', # Nombre del archivo de la imagen
    y_col='label', # Columna con las etiquetas
    class_mode='raw', # Tipo de problema de clasificación (binary para 0 o 1)
    target_size=(224, 224), # Tamaño al que se redimensionarán las imágenes
    batch_size=32, # Tamaño de los lotes de datos
    shuffle=True # Mezclar los datos de manera aleatoria
)

```

Found 220025 validated image filenames.

Respetimos el porceso para test.

```

[ ]: test_path = 'histopathologic-cancer-detection/test_converted'
validation_labels = pd.read_csv('histopathologic-cancer-detection/
    ↳validation_labels.csv')

# Cargar las etiquetas de validación
validation_labels['id'] = validation_labels['id'].apply(lambda x: x + '.png')
    ↳# Asegurarte de que los IDs tienen la extensión .png

# Crear un generador de imágenes que también realiza la normalización de las
    ↳mismas para validación
datagen_validation = ImageDataGenerator(rescale=1./255)

# Este generador carga las imágenes de validación directamente del disco en
    ↳lotes
validation_generator = datagen_validation.flow_from_dataframe(
    dataframe=validation_labels,
    directory=test_path,
    x_col='id', # Nombre del archivo de la imagen
    y_col='label', # Columna con las etiquetas
    class_mode='raw', # Uso de 'raw' para etiquetas numéricas
    target_size=(224, 224), # Tamaño al que se redimensionarán las imágenes
)

```

```

    batch_size=32, # Tamaño de los lotes de datos
    shuffle=True # Mezclar los datos de manera aleatoria
)

```

Found 57458 validated image filenames.

A continuación visualizaremos algunos datos con la finalidad de verificar como se ven las imágenes del conjunto de datos y si las transformaciones están funcionando como se esperaba.

```

[ ]: # Configuración ansiosa activada para depuración (si necesario)
tf.config.run_functions_eagerly(True)

# Define una figura con un tamaño específico
plt.figure(figsize=(10, 10))

# Toma un lote del dataset
images, labels = train_generator.next() # Obtiene un lote directamente
print("Images shape:", images.shape) # Imprime la forma del tensor de imágenes
print("Labels shape:", labels.shape) # Imprime la forma del tensor de etiquetas

# Determina el número de imágenes a visualizar
num_images = images.shape[0]
num_subplots = min(num_images, 9) # Limita a mostrar máximo 9 imágenes

for i in range(num_subplots):
    ax = plt.subplot(3, 3, i + 1)
    img = images[i] # Las imágenes ya están en formato adecuado para
    ↪visualización
    plt.imshow(img)

    # Las etiquetas ya están en formato correcto dado que class_mode='raw' las
    ↪proporciona como numéricas
    label = labels[i] # Directamente mostrar la etiqueta asociada

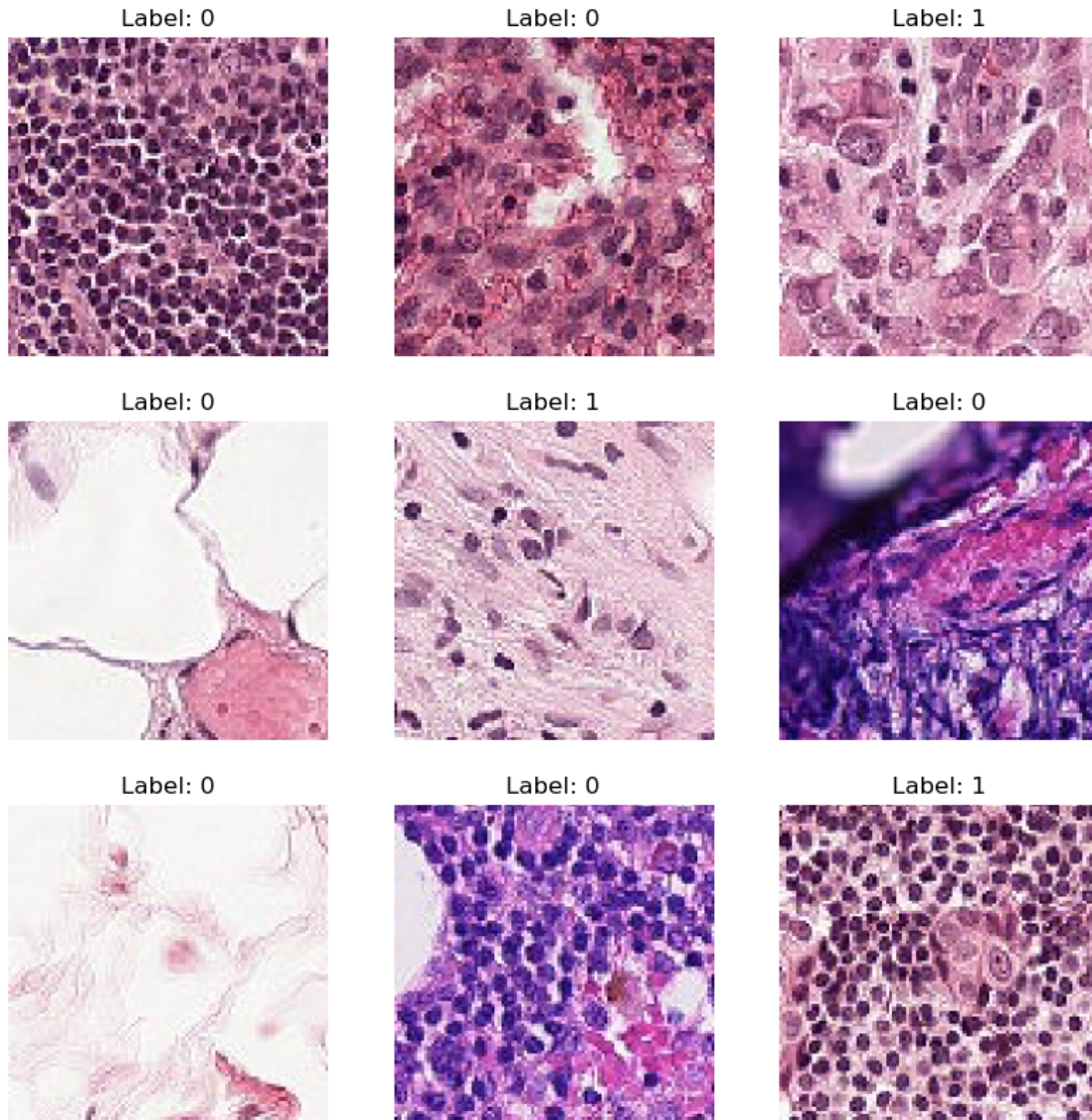
    plt.title(f"Label: {label}")
    plt.axis("off")

plt.show()

```

Images shape: (32, 224, 224, 3)

Labels shape: (32,)



1.4 2. Modelo de Deep Vision

El siguiente paso será la creación del modelo de Deep Vision. En este proceso tendremos que establecer los parámetros con los que queremos entrenar a la red, escoger el modelo a usar y entrenarlo.

1.4.1 2.1 Establecemos los parámetros

A continuación estableceremos los parámetros con los que queremos entrenar a la red, escoger el modelo a usar y entrenarlo. Estos parámetros serán:

- **batch_size**: Define el número de muestras que se procesan antes de que los pesos del modelo cambien.
- **monitor**: Especifica la métrica que se utilizará para monitorizar el rendimiento del modelo durante el entrenamiento.
- **learning_rate**: Define el tamaño del paso que se utiliza para actualizar los pesos del modelo en cada iteración

del entrenamiento. - **epochs**: Es el número total de veces que el conjunto de entrenamiento completo se pasa a través del modelo. - **early_stopping_patience**: Define cuántas épocas sin mejora en la métrica monitorizada (val_loss) deben transcurrir antes de detener el entrenamiento de manera anticipada. - **train_backbone**: Determina si las capas base del modelo preentrenado deben ser entrenables o no. - **version**: Parámetro personalizado, utilizado para versionar modelos y resultados. - **plateau_factor**: Factor por el cual se reducirá el learning_rate cuando se detecte un estancamiento en la mejora de la métrica monitorizada. - **plateau_patience**: Número de épocas que deben pasar sin mejora antes de reducir el learning_rate.

Configuración del modelo: - **input_shape**: Define las dimensiones de las imágenes de entrada al modelo. En este caso, cada imagen tiene un tamaño de 224x224 píxeles con 3 canales de color (RGB). - **model_name**: Especifica el modelo base que se utilizará.

```
[ ]: # Params
# Train
batch_size = 8
monitor = 'val_loss'
learning_rate = 1e-4
epochs = 5
early_stopping_patience = 4
train_backbone = True
version = 0
plateau_factor = 0.5
plateau_patience = 2

# Model
input_shape = (224, 224, 3)
model_name = 'NOR-RN'
```

2.1.1 Técnica de aumento de datos Esta técnica ayudan a mejorar la generalización del modelo al introducir variabilidad en el conjunto de datos de entrenamiento, lo que permite que el modelo aprenda a reconocer patrones importantes en condiciones variadas y evita que se ajuste demasiado a los datos específicos de entrenamiento (overfitting). - **RandomFlip("horizontal_and_vertical")**: Esta capa aplica un volteo aleatorio a las imágenes tanto horizontal como verticalmente. Al hacer esto, el modelo puede aprender a reconocer objetos sin importar su orientación en la imagen. - **RandomRotation((-1, 1), fill_mode='reflect', interpolation='nearest')**: Rota las imágenes un ángulo aleatorio dentro del rango especificado (en este caso, de -360 a 360 grados, ya que -1 y 1 se interpretan como fracciones de una vuelta completa en círculo). fill_mode='reflect' indica que los píxeles faltantes a causa de la rotación serán rellenados reflejando los píxeles en el borde de la imagen. interpolation='nearest' se refiere a cómo se calculan los valores de los nuevos píxeles que aparecen durante la transformación; en este caso, se asigna el valor del píxel más cercano. - **RandomZoom(width_factor=(0, 0.2), height_factor=(0, 0.2), interpolation='nearest')**: Aplica un zoom aleatorio a las imágenes. Los factores de zoom para la anchura y la altura se establecen entre 0 (sin cambio) y 0.2 (un aumento de hasta el 20%). Al igual que con la rotación, interpolation='nearest' se usa para determinar cómo llenar los nuevos píxeles.

```
[ ]: data_augmentation = keras.Sequential(
[
    keras.layers.experimental.preprocessing.
    ↪RandomFlip("horizontal_and_vertical"),
    keras.layers.experimental.preprocessing.RandomRotation((-1, 1),
    ↪fill_mode='reflect', interpolation='nearest'),
    keras.layers.experimental.preprocessing.RandomZoom(width_factor=(0, 0.2),
    ↪height_factor=(0, 0.2), interpolation='nearest'),
]
)
```

WARNING:tensorflow:From d:\anaconda\Lib\site-packages\keras\src\backend.py:873:
The name tf.get_default_graph is deprecated. Please use
tf.compat.v1.get_default_graph instead.

1.4.2 2.2 Modelo

Crearemos un modelo que permita procesar dichas imágenes y determinar mediante una clasificación binaria (0 y 1 si el paciente está afectado por la patología).

Este modelo estará formado por capas: - **Primera capa** - *data_augmentation* : Antes de nada añadiremos el *data_augmentation* que anteriormente hemos declarado, se añade como la primera capa de la red. Esto significa que cada imagen que ingrese al modelo será primero procesada por la capa de aumento de datos antes de pasar a través de las capas convolucionales y densas. - **Segunda capa** - *Conv2D(32, (3,3), activation='relu', input_shape=(224, 224, 3))*: Esta es una **capa convolucional**. - Los parámetros indican que tiene **32 filtros (o kernels)**, cada uno de tamaño 3x3. - La función de activación 'relu' (Rectified Linear Unit) se utiliza para añadir no linealidad al modelo, ayudando a aprender patrones más complejos en los datos. - *input_shape=(224, 224, 3)* define el tamaño de las imágenes de entrada al modelo, en este caso, imágenes de 224x224 píxeles con 3 canales de color (RGB). - *MaxPooling2D(2, 2)*: Esta capa realiza una operación de max pooling con una ventana de 2x2. Reduce la dimensionalidad espacial (ancho y alto) de la entrada, lo que ayuda a hacer el modelo más eficiente y a reducir el overfitting. Al seleccionar el máximo valor de cada ventana 2x2, se conservan las características más destacadas. - **Tercera capa** - *Conv2D(64, (3,3), activation='relu')*: Otra capa convolucional, esta vez con **64 filtros**. Aumentar el número de filtros permite al modelo capturar más detalles o características de las imágenes. - *MaxPooling2D(2,2)*: Otro max pooling para reducir más la dimensión de las características. - **Cuarta capa** - *Conv2D(128, (3,3), activation='relu')*: Aumenta aún más el **número de filtros a 128**. A medida que profundizamos en la red, es común aumentar el número de filtros para permitir que la red capture la complejidad de los datos. Se sigue utilizando la activación 'relu'. - *MaxPooling2D(2,2)*: Última capa de max pooling, sigue reduciendo la dimensión. - **Quinta capa** - *Flatten()*: Esta capa **aplana los mapas de características en un vector**. Esto es necesario porque las siguientes capas (densas) esperan vectores de entrada en lugar de matrices 3D. - **Sexta capa** - *Dense(512, activation='relu')*: Una capa densa (también conocida como capa completamente conectada) que tiene 512 unidades. Esta capa puede aprender combinaciones no lineales de las características extraídas por las capas convolucionales. Usa 'relu' para la activación. - **Séptima capa** - *Dropout(0.5)*: Esta capa descarta aleatoriamente el 50% de las características durante el entrenamiento. Esto ayuda a prevenir el overfitting al forzar a la red a aprender patrones redun-

dantes, haciendo el modelo más robusto. - **Octava capa** - *Dense(1, activation='sigmoid')*: Es la **última capa densa con una sola unidad**. Usa la **función de activación 'sigmoid'** porque estás realizando una clasificación binaria. Esta función mapea la salida de la red a un valor entre 0 y 1, interpretado como la probabilidad de que la entrada pertenezca a la clase 1.

```
[ ]: model = Sequential(  
    [  
        data_augmentation,  
        Conv2D(32, (3, 3), activation="relu", input_shape=(224, 224, 3)),  
        MaxPooling2D(2, 2),  
        Conv2D(64, (3, 3), activation="relu"),  
        MaxPooling2D(2, 2),  
        Conv2D(128, (3, 3), activation="relu"),  
        MaxPooling2D(2, 2),  
        Flatten(),  
        Dense(512, activation="relu"),  
        Dropout(0.5),  
        Dense(1, activation="sigmoid"),  
    ]  
)
```

```
WARNING:tensorflow:From d:\anaconda\Lib\site-  
packages\keras\src\layers\pooling\max_pooling2d.py:161: The name tf.nn.max_pool  
is deprecated. Please use tf.nn.max_pool2d instead.
```

2.2.1 Callbacks Las callbacks permiten realizar acciones específicas en diferentes etapas del entrenamiento del modelo. Cada callback que has mencionado tiene un propósito particular que puede ayudar a mejorar el rendimiento del modelo, ahorrar recursos, o proporcionar información adicional sobre el proceso de entrenamiento. - **ModelCheckpoint**: Este callback guarda automáticamente el modelo o los pesos del modelo en un archivo, en ciertos intervalos, lo que te permite recuperar y usar el modelo sin tener que reentrenarlo. - **save_best_only=True**: Indica que el modelo se guardará solo cuando su desempeño en la métrica monitorizada sea el mejor hasta el momento. - **f'weights/{model_name}/version_{version}'**: La ruta específica dónde se guardarán los archivos del modelo, incluyendo detalles como el nombre del modelo y la versión, lo que facilita la organización y el acceso a diferentes versiones o configuraciones de entrenamiento. - **EarlyStopping**: Detiene el entrenamiento cuando una métrica monitorizada ha dejado de mejorar, lo cual ayuda a prevenir el sobreajuste y a ahorrar tiempo y recursos si el entrenamiento ya no está siendo productivo. - **patience=early_stopping_patience**: Configura cuántas épocas deben pasar sin mejora antes de detener definitivamente el entrenamiento. Esto proporciona un margen para confirmar que el rendimiento realmente ha dejado de mejorar y no es solo una fluctuación en los datos. - **ReduceLROnPlateau**: Reduce la tasa de aprendizaje (learning rate) cuando una métrica monitorizada ha dejado de mejorar. - **factor=plateau_factor**: Especifica el factor de reducción de la tasa de aprendizaje. En este caso, se establece en 0.5, lo que significa que la tasa de aprendizaje se reducirá en un 50% cada vez que la métrica monitorizada no mejore. - **patience=plateau_patience**: Especifica cuántas épocas sin mejora deben pasar antes

de reducir la tasa de aprendizaje, permitiendo algunas fluctuaciones antes de hacer un ajuste. - **TensorBoard**: Proporciona una manera de visualizar diferentes métricas de entrenamiento y validación en tiempo real, usando una interfaz gráfica en el navegador. - `log_dir=f'weights/{model_name}/version_{version}'`: Establece el directorio donde se guardarán los logs de TensorBoard, lo que permite un fácil seguimiento y comparación de diferentes experimentos o versiones de entrenamiento.

```
[ ]: callbacks = [  
    keras.callbacks.ModelCheckpoint(f'weights/{model_name}/version_{version}',  
    ↪save_best_only=True, monitor=monitor),  
    keras.callbacks.EarlyStopping(monitor=monitor,  
    ↪patience=early_stopping_patience, mode='auto'),  
    keras.callbacks.ReduceLROnPlateau(monitor=monitor, factor=plateau_factor,  
    ↪patience=plateau_patience, mode='auto'),  
    keras.callbacks.TensorBoard(log_dir=f'weights/{model_name}/  
    ↪version_{version}')
```

2.2.2 Compilación del modelo El siguiente paso será compilar el modelo, para ello utilizaremos el optimizador de Adam que es uno de los optimizadores más comunes y efectivos en entrenamientos de redes neuronales, especialmente conocido por manejar bien las tasas de aprendizaje adaptativas para diferentes parámetros. Y detallaremos valores como:

- **loss='binary_crossentropy'**: Esta función mide el rendimiento del modelo cuantificando la diferencia entre las etiquetas reales y las predicciones, ideal para situaciones donde las etiquetas son 0 o 1.
- **metrics**: Estas son las medidas que utilizas para juzgar el rendimiento del modelo. Incluyen:
 - **Precisión**: Proporción de identificaciones positivas que fueron realmente correctas.
 - **Recuerdo (Recall)**: Proporción de casos positivos reales que fueron identificados correctamente.
 - **Exactitud Binaria (BinaryAccuracy)**: Mide la frecuencia con la que las predicciones del modelo coinciden con las etiquetas binarias.

```
[ ]: model.compile(  
    optimizer=keras.optimizers.Adam(learning_rate=learning_rate),  
    loss="binary_crossentropy",  
    metrics=[  
        keras.metrics.Precision(),  
        keras.metrics.Recall(),  
        keras.metrics.BinaryAccuracy(),  
    ],  
)
```

2.2.3 Entrenamiento del modelo A continuación habrá que entrenar el modelo, para ello será necesario establecer unos valores a dicho entrenamiento: - **model.fit()**: Este método es donde ajustas los pesos de tu modelo utilizando tus datos de entrenamiento. - **train_generator**: Es el generador que alimenta datos al modelo en lotes, permitiendo el uso eficiente de memoria y posiblemente incorporando más aumentos de datos en tiempo real. - **epochs**: Número total de

ciclos completos a través del conjunto de entrenamiento completo que el modelo debería ejecutar durante el entrenamiento. - **steps_per_epoch**: Total de número de pasos antes de que se declare una época terminada y comience la siguiente época. Normalmente, es el número de muestras dividido por el tamaño del lote. - **validation_data**: Datos contra los cuales evaluarás el modelo al final de cada época. - **validation_steps**: Define cuántos lotes de muestras del conjunto de validación serán evaluados. - **verbose=1**: Controla la cantidad de salida de información que se muestra durante el entrenamiento; 1 significa que mostrará una barra de progreso. - **callbacks**: Lista de callbacks que se aplicarán durante el entrenamiento.

```
[ ]: # Entrenamos el modelo
H = model.fit(
    train_generator,
    epochs=epochs,
    steps_per_epoch=len(train_generator),
    validation_data=validation_generator,
    validation_steps=len(validation_generator),
    verbose=1,
    callbacks=callbacks
)
```

Epoch 1/5

```
d:\anaconda\Lib\site-
packages\tensorflow\python\data\ops\structured_function.py:258: UserWarning:
Even though the `tf.config.experimental_run_functions_eagerly` option is set,
this option does not apply to tf.data functions. To force eager execution of
tf.data functions, please use `tf.data.experimental.enable_debug_mode()`.
  warnings.warn(
```

```
WARNING:tensorflow:From d:\anaconda\Lib\site-
packages\keras\src\utils\tf_utils.py:492: The name tf.ragged.RaggedTensorValue
is deprecated. Please use tf.compat.v1.ragged.RaggedTensorValue instead.
```

```
6876/6876 [=====] - ETA: 0s - loss: 0.4265 - precision:
0.7894 - recall: 0.7185 - binary_accuracy: 0.8084INFO:tensorflow:Assets written
to: weights/NOR-RN\version_0\assets
```

```
INFO:tensorflow:Assets written to: weights/NOR-RN\version_0\assets
```

```
6876/6876 [=====] - 11255s 2s/step - loss: 0.4265 -
precision: 0.7894 - recall: 0.7185 - binary_accuracy: 0.8084 - val_loss: 0.7991
- val_precision: 0.0000e+00 - val_recall: 0.0000e+00 - val_binary_accuracy:
0.6960 - lr: 1.0000e-04
```

Epoch 2/5

```
6876/6876 [=====] - 11439s 2s/step - loss: 0.3365 -
precision: 0.8415 - recall: 0.7961 - binary_accuracy: 0.8567 - val_loss: 1.0151
- val_precision: 0.0000e+00 - val_recall: 0.0000e+00 - val_binary_accuracy:
0.6342 - lr: 1.0000e-04
```

Epoch 3/5

```
6876/6876 [=====] - 11350s 2s/step - loss: 0.3027 -
```

```

precision: 0.8605 - recall: 0.8209 - binary_accuracy: 0.8736 - val_loss: 1.2479
- val_precision: 0.0000e+00 - val_recall: 0.0000e+00 - val_binary_accuracy:
0.6212 - lr: 1.0000e-04
Epoch 4/5
6876/6876 [=====] - 11340s 2s/step - loss: 0.2687 -
precision: 0.8807 - recall: 0.8441 - binary_accuracy: 0.8906 - val_loss: 1.2132
- val_precision: 0.0000e+00 - val_recall: 0.0000e+00 - val_binary_accuracy:
0.6365 - lr: 5.0000e-05
Epoch 5/5
6876/6876 [=====] - 11335s 2s/step - loss: 0.2567 -
precision: 0.8865 - recall: 0.8532 - binary_accuracy: 0.8963 - val_loss: 1.1120
- val_precision: 0.0000e+00 - val_recall: 0.0000e+00 - val_binary_accuracy:
0.6764 - lr: 5.0000e-05

```

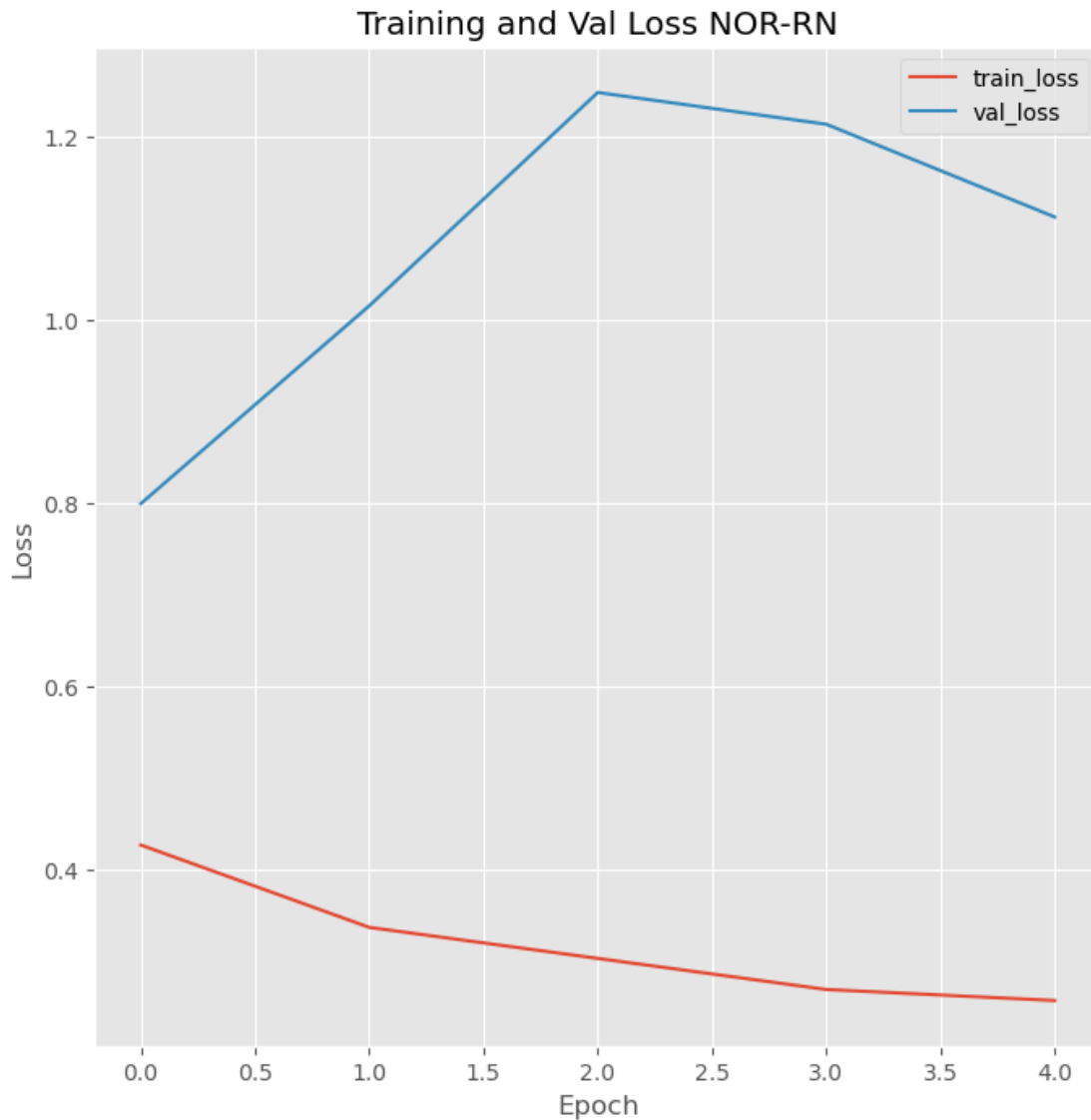
2.2.4 Gráfica de losses Permite visualizar la evolución de la pérdida de entrenamiento y la pérdida de validación a lo largo de las épocas durante el entrenamiento de tu modelo.

```

[ ]: # Gráficas losses
epochs_trained = len(H.history['loss'])
plt.style.use('ggplot')
plt.figure()
plt.plot(np.arange(0, epochs_trained), H.history['loss'], label='train_loss')
plt.plot(np.arange(0, epochs_trained), H.history['val_loss'], label='val_loss')

plt.title(f'Training and Val Loss {model_name}')
plt.xlabel('Epoch')
plt.ylabel('Loss')
plt.legend()
plt.savefig(f'weights/{model_name}/version_{version}/losses.png')
plt.show()

```



2.2.5 Inferencia y evaluación Por último tendremos que ejecutar inferencias en un conjunto de datos de prueba y calcular métricas de clasificación para evaluar el rendimiento del modelo.

```
[ ]: # Asegura modelo esté limpio antes de cargar uno nuevo
if 'model' in locals():
    del model
    tf.keras.backend.clear_session()

print('Loading model from checkpoint ...')
model_path = f'weights/{model_name}/version_{version}'
model = tf.keras.models.load_model(model_path)
print('Model loaded!')
```

```

# Preparación para la inferencia en el conjunto de prueba
preds = []
targets = []

print('Running inference on test data...')
for imgs, labels in tqdm(validation_generator):
    # Realiza la predicción para el batch actual
    batch_preds = model.predict(imgs)
    # Almacena las predicciones como clases predichas más probables
    preds.extend(tf.argmax(batch_preds, axis=1).numpy())
    # Directamente agregar las etiquetas numéricas
    targets.extend(labels)

# Generar y visualizar las métricas de clasificación
print('Calculating classification metrics...')
report = classification_report(targets, preds, target_names=['Negativo',
    ↪ 'Positivo'])

# Opcionalmente, guardar el informe de clasificación
with open(f'weights/{model_name}/version_{version}/classification_report.txt',
    ↪ 'w') as f:
    f.write(report)

```

Loading model from checkpoint ...

WARNING:tensorflow:From d:\anaconda\Lib\site-packages\keras\src\saving\legacy\saved_model\load.py:107: The name tf.gfile.Exists is deprecated. Please use tf.io.gfile.exists instead.

WARNING:tensorflow:From d:\anaconda\Lib\site-packages\keras\src\saving\legacy\saved_model\load.py:107: The name tf.gfile.Exists is deprecated. Please use tf.io.gfile.exists instead.

Model loaded!

Running inference on test data...

```

0%|          | 0/1796 [00:00<?, ?it/s]d:\anaconda\Lib\site-
packages\tensorflow\python\data\ops\structured_function.py:258: UserWarning:
Even though the `tf.config.experimental_run_functions_eagerly` option is set,
this option does not apply to tf.data functions. To force eager execution of
tf.data functions, please use `tf.data.experimental.enable_debug_mode()`.
  warnings.warn(

1/1 [=====] - 0s 317ms/step

0%|          | 1/1796 [00:00<12:51, 2.33it/s]

1/1 [=====] - 0s 286ms/step

```

```

0%|          | 2/1796 [00:00<12:01, 2.49it/s]
1/1 [=====] - 0s 275ms/step
0%|          | 3/1796 [00:01<11:29, 2.60it/s]
1/1 [=====] - 0s 310ms/step
0%|          | 4/1796 [00:01<11:39, 2.56it/s]
1/1 [=====] - 0s 296ms/step
0%|          | 5/1796 [00:02<12:07, 2.46it/s]
1/1 [=====] - 0s 333ms/step
0%|          | 6/1796 [00:02<12:52, 2.32it/s]
1/1 [=====] - 0s 290ms/step
0%|          | 7/1796 [00:02<12:54, 2.31it/s]
1/1 [=====] - 0s 288ms/step
0%|          | 8/1796 [00:03<12:53, 2.31it/s]
1/1 [=====] - 0s 316ms/step
1%|          | 9/1796 [00:03<13:05, 2.27it/s]
1/1 [=====] - 0s 298ms/step
1%|          | 10/1796 [00:04<13:06, 2.27it/s]
1/1 [=====] - 0s 290ms/step
1%|          | 11/1796 [00:04<13:02, 2.28it/s]
1/1 [=====] - 0s 279ms/step
1%|          | 12/1796 [00:05<12:28, 2.38it/s]
1/1 [=====] - 0s 265ms/step
1%|          | 13/1796 [00:05<12:25, 2.39it/s]
1/1 [=====] - 0s 282ms/step
1%|          | 14/1796 [00:05<12:00, 2.47it/s]
1/1 [=====] - 0s 264ms/step
1%|          | 15/1796 [00:06<11:32, 2.57it/s]
1/1 [=====] - 0s 264ms/step
1%|          | 16/1796 [00:06<11:11, 2.65it/s]
1/1 [=====] - 0s 270ms/step
1%|          | 17/1796 [00:06<11:01, 2.69it/s]
1/1 [=====] - 0s 265ms/step

```

```

1%|          | 18/1796 [00:07<10:55, 2.71it/s]
1/1 [=====] - 0s 264ms/step
1%|          | 19/1796 [00:07<10:43, 2.76it/s]
1/1 [=====] - 0s 259ms/step
1%|          | 20/1796 [00:07<10:33, 2.80it/s]
1/1 [=====] - 0s 261ms/step
1%|          | 21/1796 [00:08<10:35, 2.79it/s]
1/1 [=====] - 0s 264ms/step
1%|          | 22/1796 [00:08<10:29, 2.82it/s]
1/1 [=====] - 0s 283ms/step
1%|          | 23/1796 [00:09<10:37, 2.78it/s]
1/1 [=====] - 0s 262ms/step
1%|          | 24/1796 [00:09<10:35, 2.79it/s]
1/1 [=====] - 0s 259ms/step
1%|          | 25/1796 [00:09<10:41, 2.76it/s]
1/1 [=====] - 0s 261ms/step
1%|          | 26/1796 [00:10<10:34, 2.79it/s]
1/1 [=====] - 0s 267ms/step
2%|          | 27/1796 [00:10<10:40, 2.76it/s]
1/1 [=====] - 0s 262ms/step
2%|          | 28/1796 [00:10<10:38, 2.77it/s]
1/1 [=====] - 0s 265ms/step
2%|          | 29/1796 [00:11<10:35, 2.78it/s]
1/1 [=====] - 0s 262ms/step
2%|          | 30/1796 [00:11<10:32, 2.79it/s]
1/1 [=====] - 0s 259ms/step
2%|          | 31/1796 [00:11<10:25, 2.82it/s]
1/1 [=====] - 0s 259ms/step
2%|          | 32/1796 [00:12<10:22, 2.84it/s]
1/1 [=====] - 0s 286ms/step
2%|          | 33/1796 [00:12<10:37, 2.76it/s]
1/1 [=====] - 0s 283ms/step

```

```

2%|          | 34/1796 [00:13<10:49, 2.71it/s]
1/1 [=====] - 0s 283ms/step
2%|          | 35/1796 [00:13<10:55, 2.69it/s]
1/1 [=====] - 0s 259ms/step
2%|          | 36/1796 [00:13<10:44, 2.73it/s]
1/1 [=====] - 0s 263ms/step
2%|          | 37/1796 [00:14<10:49, 2.71it/s]
1/1 [=====] - 0s 287ms/step
2%|          | 38/1796 [00:14<10:54, 2.69it/s]
1/1 [=====] - 0s 269ms/step
2%|          | 39/1796 [00:14<11:20, 2.58it/s]
1/1 [=====] - 0s 259ms/step
2%|          | 40/1796 [00:15<11:03, 2.65it/s]
1/1 [=====] - 0s 276ms/step
2%|          | 41/1796 [00:15<10:54, 2.68it/s]
1/1 [=====] - 0s 263ms/step
2%|          | 42/1796 [00:16<10:43, 2.72it/s]
1/1 [=====] - 0s 281ms/step
2%|          | 43/1796 [00:16<10:45, 2.72it/s]
1/1 [=====] - 0s 272ms/step
2%|          | 44/1796 [00:16<10:41, 2.73it/s]
1/1 [=====] - 0s 284ms/step
3%|          | 45/1796 [00:17<10:47, 2.71it/s]
1/1 [=====] - 0s 262ms/step
3%|          | 46/1796 [00:17<10:39, 2.74it/s]
1/1 [=====] - 0s 272ms/step
3%|          | 47/1796 [00:17<10:38, 2.74it/s]
1/1 [=====] - 0s 262ms/step
3%|          | 48/1796 [00:18<10:34, 2.76it/s]
1/1 [=====] - 0s 268ms/step
3%|          | 49/1796 [00:18<10:43, 2.71it/s]
1/1 [=====] - 0s 271ms/step

```

```

3%|          | 50/1796 [00:18<10:39, 2.73it/s]
1/1 [=====] - 0s 260ms/step
3%|          | 51/1796 [00:19<10:32, 2.76it/s]
1/1 [=====] - 0s 270ms/step
3%|          | 52/1796 [00:19<10:31, 2.76it/s]
1/1 [=====] - 0s 265ms/step
3%|          | 53/1796 [00:20<10:28, 2.77it/s]
1/1 [=====] - 0s 260ms/step
3%|          | 54/1796 [00:20<10:23, 2.80it/s]
1/1 [=====] - 0s 263ms/step
3%|          | 55/1796 [00:20<10:20, 2.81it/s]
1/1 [=====] - 0s 263ms/step
3%|          | 56/1796 [00:21<10:17, 2.82it/s]
1/1 [=====] - 0s 262ms/step
3%|          | 57/1796 [00:21<10:17, 2.81it/s]
1/1 [=====] - 0s 258ms/step
3%|          | 58/1796 [00:21<10:12, 2.84it/s]
1/1 [=====] - 0s 264ms/step
3%|          | 59/1796 [00:22<10:12, 2.84it/s]
1/1 [=====] - 0s 262ms/step
3%|          | 60/1796 [00:22<10:15, 2.82it/s]
1/1 [=====] - 0s 262ms/step
3%|          | 61/1796 [00:22<10:25, 2.77it/s]
1/1 [=====] - 0s 261ms/step
3%|          | 62/1796 [00:23<10:20, 2.79it/s]
1/1 [=====] - 0s 265ms/step
4%|          | 63/1796 [00:23<10:22, 2.78it/s]
1/1 [=====] - 0s 261ms/step
4%|          | 64/1796 [00:23<10:35, 2.72it/s]
1/1 [=====] - 0s 266ms/step
4%|          | 65/1796 [00:24<10:27, 2.76it/s]
1/1 [=====] - 0s 262ms/step

```



```

4%|          | 66/1796 [00:24<10:23, 2.77it/s]
1/1 [=====] - 0s 270ms/step
4%|          | 67/1796 [00:25<10:28, 2.75it/s]
1/1 [=====] - 0s 284ms/step
4%|          | 68/1796 [00:25<10:35, 2.72it/s]
1/1 [=====] - 0s 266ms/step
4%|          | 69/1796 [00:25<10:31, 2.73it/s]
1/1 [=====] - 0s 262ms/step
4%|          | 70/1796 [00:26<10:21, 2.78it/s]
1/1 [=====] - 0s 271ms/step
4%|          | 71/1796 [00:26<10:22, 2.77it/s]
1/1 [=====] - 0s 259ms/step
4%|          | 72/1796 [00:26<10:18, 2.79it/s]
1/1 [=====] - 0s 265ms/step
4%|          | 73/1796 [00:27<10:30, 2.73it/s]
1/1 [=====] - 0s 279ms/step
4%|          | 74/1796 [00:27<10:29, 2.74it/s]
1/1 [=====] - 0s 261ms/step
4%|          | 75/1796 [00:27<10:22, 2.76it/s]
1/1 [=====] - 0s 260ms/step
4%|          | 76/1796 [00:28<10:15, 2.79it/s]
1/1 [=====] - 0s 266ms/step
4%|          | 77/1796 [00:28<10:12, 2.81it/s]
1/1 [=====] - 0s 260ms/step
4%|          | 78/1796 [00:28<10:12, 2.81it/s]
1/1 [=====] - 0s 261ms/step
4%|          | 79/1796 [00:29<10:07, 2.83it/s]
1/1 [=====] - 0s 262ms/step
4%|          | 80/1796 [00:29<10:05, 2.83it/s]
1/1 [=====] - 0s 261ms/step
5%|          | 81/1796 [00:30<10:07, 2.82it/s]
1/1 [=====] - 0s 260ms/step

```

5%| | 82/1796 [00:30<10:04, 2.84it/s]
 1/1 [=====] - 0s 258ms/step
 5%| | 83/1796 [00:30<09:58, 2.86it/s]
 1/1 [=====] - 0s 261ms/step
 5%| | 84/1796 [00:31<10:08, 2.81it/s]
 1/1 [=====] - 0s 264ms/step
 5%| | 85/1796 [00:31<10:19, 2.76it/s]
 1/1 [=====] - 0s 264ms/step
 5%| | 86/1796 [00:31<10:14, 2.78it/s]
 1/1 [=====] - 0s 260ms/step
 5%| | 87/1796 [00:32<10:14, 2.78it/s]
 1/1 [=====] - 0s 263ms/step
 5%| | 88/1796 [00:32<10:30, 2.71it/s]
 1/1 [=====] - 0s 268ms/step
 5%| | 89/1796 [00:32<10:24, 2.73it/s]
 1/1 [=====] - 0s 285ms/step
 5%| | 90/1796 [00:33<10:30, 2.71it/s]
 1/1 [=====] - 0s 262ms/step
 5%| | 91/1796 [00:33<10:19, 2.75it/s]
 1/1 [=====] - 0s 269ms/step
 5%| | 92/1796 [00:34<10:18, 2.76it/s]
 1/1 [=====] - 0s 261ms/step
 5%| | 93/1796 [00:34<10:12, 2.78it/s]
 1/1 [=====] - 0s 261ms/step
 5%| | 94/1796 [00:34<10:06, 2.80it/s]
 1/1 [=====] - 0s 289ms/step
 5%| | 95/1796 [00:35<10:19, 2.75it/s]
 1/1 [=====] - 0s 259ms/step
 5%| | 96/1796 [00:35<10:22, 2.73it/s]
 1/1 [=====] - 0s 263ms/step
 5%| | 97/1796 [00:35<10:28, 2.70it/s]
 1/1 [=====] - 0s 268ms/step

```

5%|          | 98/1796 [00:36<10:19, 2.74it/s]
1/1 [=====] - 0s 266ms/step
6%|          | 99/1796 [00:36<10:18, 2.74it/s]
1/1 [=====] - 0s 264ms/step
6%|          | 100/1796 [00:36<10:11, 2.77it/s]
1/1 [=====] - 0s 266ms/step
6%|          | 101/1796 [00:37<10:08, 2.79it/s]
1/1 [=====] - 0s 266ms/step
6%|          | 102/1796 [00:37<10:06, 2.79it/s]
1/1 [=====] - 0s 262ms/step
6%|          | 103/1796 [00:37<10:01, 2.82it/s]
1/1 [=====] - 0s 261ms/step
6%|          | 104/1796 [00:38<09:59, 2.82it/s]
1/1 [=====] - 0s 264ms/step
6%|          | 105/1796 [00:38<10:02, 2.81it/s]
1/1 [=====] - 0s 262ms/step
6%|          | 106/1796 [00:39<09:59, 2.82it/s]
1/1 [=====] - 0s 263ms/step
6%|          | 107/1796 [00:39<09:58, 2.82it/s]
1/1 [=====] - 0s 258ms/step
6%|          | 108/1796 [00:39<10:01, 2.80it/s]
1/1 [=====] - 0s 260ms/step
6%|          | 109/1796 [00:40<10:26, 2.69it/s]
1/1 [=====] - 0s 282ms/step
6%|          | 110/1796 [00:40<10:25, 2.69it/s]
1/1 [=====] - 0s 261ms/step
6%|          | 111/1796 [00:40<10:12, 2.75it/s]
1/1 [=====] - 0s 262ms/step
6%|          | 112/1796 [00:41<10:04, 2.79it/s]
1/1 [=====] - 0s 271ms/step
6%|          | 113/1796 [00:41<10:04, 2.78it/s]
1/1 [=====] - 0s 261ms/step

```

```

6%|          | 114/1796 [00:41<10:02, 2.79it/s]
1/1 [=====] - 0s 263ms/step
6%|          | 115/1796 [00:42<09:59, 2.81it/s]
1/1 [=====] - 0s 266ms/step
6%|          | 116/1796 [00:42<09:57, 2.81it/s]
1/1 [=====] - 0s 263ms/step
7%|          | 117/1796 [00:43<09:59, 2.80it/s]
1/1 [=====] - 0s 264ms/step
7%|          | 118/1796 [00:43<09:58, 2.81it/s]
1/1 [=====] - 0s 261ms/step
7%|          | 119/1796 [00:43<09:58, 2.80it/s]
1/1 [=====] - 0s 260ms/step
7%|          | 120/1796 [00:44<10:01, 2.79it/s]
1/1 [=====] - 0s 270ms/step
7%|          | 121/1796 [00:44<10:16, 2.72it/s]
1/1 [=====] - 0s 269ms/step
7%|          | 122/1796 [00:44<10:11, 2.74it/s]
1/1 [=====] - 0s 270ms/step
7%|          | 123/1796 [00:45<10:11, 2.73it/s]
1/1 [=====] - 0s 268ms/step
7%|          | 124/1796 [00:45<10:09, 2.75it/s]
1/1 [=====] - 0s 271ms/step
7%|          | 125/1796 [00:45<10:07, 2.75it/s]
1/1 [=====] - 0s 260ms/step
7%|          | 126/1796 [00:46<10:04, 2.76it/s]
1/1 [=====] - 0s 260ms/step
7%|          | 127/1796 [00:46<09:57, 2.79it/s]
1/1 [=====] - 0s 265ms/step
7%|          | 128/1796 [00:47<09:55, 2.80it/s]
1/1 [=====] - 0s 260ms/step
7%|          | 129/1796 [00:47<09:56, 2.80it/s]
1/1 [=====] - 0s 258ms/step

```

```

7%|          | 130/1796 [00:47<09:56, 2.79it/s]
1/1 [=====] - 0s 272ms/step
7%|          | 131/1796 [00:48<10:14, 2.71it/s]
1/1 [=====] - 0s 259ms/step
7%|          | 132/1796 [00:48<10:06, 2.74it/s]
1/1 [=====] - 0s 265ms/step
7%|          | 133/1796 [00:48<10:16, 2.70it/s]
1/1 [=====] - 0s 270ms/step
7%|          | 134/1796 [00:49<10:11, 2.72it/s]
1/1 [=====] - 0s 271ms/step
8%|          | 135/1796 [00:49<10:10, 2.72it/s]
1/1 [=====] - 0s 261ms/step
8%|          | 136/1796 [00:49<09:58, 2.78it/s]
1/1 [=====] - 0s 263ms/step
8%|          | 137/1796 [00:50<09:54, 2.79it/s]
1/1 [=====] - 0s 265ms/step
8%|          | 138/1796 [00:50<09:53, 2.80it/s]
1/1 [=====] - 0s 263ms/step
8%|          | 139/1796 [00:50<09:48, 2.81it/s]
1/1 [=====] - 0s 260ms/step
8%|          | 140/1796 [00:51<09:44, 2.83it/s]
1/1 [=====] - 0s 262ms/step
8%|          | 141/1796 [00:51<09:47, 2.82it/s]
1/1 [=====] - 0s 261ms/step
8%|          | 142/1796 [00:52<09:44, 2.83it/s]
1/1 [=====] - 0s 263ms/step
8%|          | 143/1796 [00:52<09:42, 2.84it/s]
1/1 [=====] - 0s 259ms/step
8%|          | 144/1796 [00:52<09:44, 2.83it/s]
1/1 [=====] - 0s 260ms/step
8%|          | 145/1796 [00:53<09:51, 2.79it/s]
1/1 [=====] - 0s 274ms/step

```

```

      8%|          | 146/1796 [00:53<09:53, 2.78it/s]
1/1 [=====] - 0s 261ms/step
      8%|          | 147/1796 [00:53<09:51, 2.79it/s]
1/1 [=====] - 0s 262ms/step
      8%|          | 148/1796 [00:54<09:48, 2.80it/s]
1/1 [=====] - 0s 266ms/step
      8%|          | 149/1796 [00:54<09:44, 2.82it/s]
1/1 [=====] - 0s 262ms/step
      8%|          | 150/1796 [00:54<09:47, 2.80it/s]
1/1 [=====] - 0s 266ms/step
      8%|          | 151/1796 [00:55<10:06, 2.71it/s]
1/1 [=====] - 0s 302ms/step
      8%|          | 152/1796 [00:55<10:19, 2.65it/s]
1/1 [=====] - 0s 263ms/step
      9%|          | 153/1796 [00:56<10:08, 2.70it/s]
1/1 [=====] - 0s 258ms/step
      9%|          | 154/1796 [00:56<09:53, 2.76it/s]
1/1 [=====] - 0s 264ms/step
      9%|          | 155/1796 [00:56<09:50, 2.78it/s]
1/1 [=====] - 0s 257ms/step
      9%|          | 156/1796 [00:57<09:48, 2.79it/s]
1/1 [=====] - 0s 266ms/step
      9%|          | 157/1796 [00:57<10:00, 2.73it/s]
1/1 [=====] - 0s 277ms/step
      9%|          | 158/1796 [00:57<10:00, 2.73it/s]
1/1 [=====] - 0s 260ms/step
      9%|          | 159/1796 [00:58<09:54, 2.75it/s]
1/1 [=====] - 0s 262ms/step
      9%|          | 160/1796 [00:58<09:47, 2.78it/s]
1/1 [=====] - 0s 268ms/step
      9%|          | 161/1796 [00:58<09:46, 2.79it/s]
1/1 [=====] - 0s 263ms/step

```

```

9%|          | 162/1796 [00:59<09:47, 2.78it/s]
1/1 [=====] - 0s 261ms/step
9%|          | 163/1796 [00:59<09:41, 2.81it/s]
1/1 [=====] - 0s 262ms/step
9%|          | 164/1796 [00:59<09:39, 2.82it/s]
1/1 [=====] - 0s 259ms/step
9%|          | 165/1796 [01:00<09:43, 2.79it/s]
1/1 [=====] - 0s 264ms/step
9%|          | 166/1796 [01:00<09:39, 2.81it/s]
1/1 [=====] - 0s 264ms/step
9%|          | 167/1796 [01:01<09:38, 2.81it/s]
1/1 [=====] - 0s 262ms/step
9%|          | 168/1796 [01:01<09:39, 2.81it/s]
1/1 [=====] - 0s 258ms/step
9%|          | 169/1796 [01:01<10:05, 2.69it/s]
1/1 [=====] - 0s 271ms/step
9%|          | 170/1796 [01:02<09:59, 2.71it/s]
1/1 [=====] - 0s 261ms/step
10%|         | 171/1796 [01:02<09:52, 2.74it/s]
1/1 [=====] - 0s 262ms/step
10%|         | 172/1796 [01:02<09:43, 2.78it/s]
1/1 [=====] - 0s 260ms/step
10%|         | 173/1796 [01:03<09:38, 2.81it/s]
1/1 [=====] - 0s 264ms/step
10%|         | 174/1796 [01:03<09:38, 2.80it/s]
1/1 [=====] - 0s 257ms/step
10%|         | 175/1796 [01:03<09:33, 2.83it/s]
1/1 [=====] - 0s 262ms/step
10%|         | 176/1796 [01:04<09:31, 2.83it/s]
1/1 [=====] - 0s 261ms/step
10%|         | 177/1796 [01:04<09:33, 2.82it/s]
1/1 [=====] - 0s 261ms/step

```

```

10%|          | 178/1796 [01:04<09:30, 2.84it/s]
1/1 [=====] - 0s 264ms/step
10%|          | 179/1796 [01:05<09:31, 2.83it/s]
1/1 [=====] - 0s 263ms/step
10%|          | 180/1796 [01:05<09:39, 2.79it/s]
1/1 [=====] - 0s 264ms/step
10%|          | 181/1796 [01:06<09:57, 2.70it/s]
1/1 [=====] - 0s 265ms/step
10%|          | 182/1796 [01:06<09:50, 2.74it/s]
1/1 [=====] - 0s 259ms/step
10%|          | 183/1796 [01:06<09:45, 2.75it/s]
1/1 [=====] - 0s 261ms/step
10%|          | 184/1796 [01:07<09:40, 2.78it/s]
1/1 [=====] - 0s 270ms/step
10%|          | 185/1796 [01:07<09:38, 2.79it/s]
1/1 [=====] - 0s 262ms/step
10%|          | 186/1796 [01:07<09:37, 2.79it/s]
1/1 [=====] - 0s 259ms/step
10%|          | 187/1796 [01:08<09:52, 2.71it/s]
1/1 [=====] - 0s 278ms/step
10%|          | 188/1796 [01:08<09:51, 2.72it/s]
1/1 [=====] - 0s 262ms/step
11%|          | 189/1796 [01:09<09:43, 2.75it/s]
1/1 [=====] - 0s 261ms/step
11%|          | 190/1796 [01:09<09:36, 2.79it/s]
1/1 [=====] - 0s 266ms/step
11%|          | 191/1796 [01:09<09:41, 2.76it/s]
1/1 [=====] - 0s 258ms/step
11%|          | 192/1796 [01:10<09:37, 2.78it/s]
1/1 [=====] - 0s 258ms/step
11%|          | 193/1796 [01:10<09:41, 2.76it/s]
1/1 [=====] - 0s 263ms/step

```



```

11%|          | 194/1796 [01:10<09:38, 2.77it/s]
1/1 [=====] - 0s 263ms/step
11%|          | 195/1796 [01:11<09:37, 2.77it/s]
1/1 [=====] - 0s 263ms/step
11%|          | 196/1796 [01:11<09:29, 2.81it/s]
1/1 [=====] - 0s 262ms/step
11%|          | 197/1796 [01:11<09:25, 2.83it/s]
1/1 [=====] - 0s 260ms/step
11%|          | 198/1796 [01:12<09:27, 2.82it/s]
1/1 [=====] - 0s 266ms/step
11%|          | 199/1796 [01:12<09:24, 2.83it/s]
1/1 [=====] - 0s 262ms/step
11%|          | 200/1796 [01:12<09:21, 2.84it/s]
1/1 [=====] - 0s 263ms/step
11%|          | 201/1796 [01:13<09:24, 2.82it/s]
1/1 [=====] - 0s 280ms/step
11%|          | 202/1796 [01:13<09:31, 2.79it/s]
1/1 [=====] - 0s 314ms/step
11%|          | 203/1796 [01:14<10:03, 2.64it/s]
1/1 [=====] - 0s 293ms/step
11%|          | 204/1796 [01:14<10:35, 2.51it/s]
1/1 [=====] - 0s 263ms/step
11%|          | 205/1796 [01:14<10:25, 2.54it/s]
1/1 [=====] - 0s 284ms/step
11%|          | 206/1796 [01:15<10:15, 2.58it/s]
1/1 [=====] - 0s 264ms/step
12%|          | 207/1796 [01:15<09:58, 2.66it/s]
1/1 [=====] - 0s 269ms/step
12%|          | 208/1796 [01:15<09:50, 2.69it/s]
1/1 [=====] - 0s 284ms/step
12%|          | 209/1796 [01:16<09:53, 2.67it/s]
1/1 [=====] - 0s 263ms/step

```

```

12%|          | 210/1796 [01:16<09:42, 2.72it/s]
1/1 [=====] - 0s 258ms/step
12%|          | 211/1796 [01:17<09:31, 2.77it/s]
1/1 [=====] - 0s 268ms/step
12%|          | 212/1796 [01:17<09:29, 2.78it/s]
1/1 [=====] - 0s 259ms/step
12%|          | 213/1796 [01:17<09:26, 2.80it/s]
1/1 [=====] - 0s 259ms/step
12%|          | 214/1796 [01:18<09:19, 2.83it/s]
1/1 [=====] - 0s 259ms/step
12%|          | 215/1796 [01:18<09:15, 2.85it/s]
1/1 [=====] - 0s 259ms/step
12%|          | 216/1796 [01:18<09:19, 2.83it/s]
1/1 [=====] - 0s 264ms/step
12%|          | 217/1796 [01:19<09:28, 2.78it/s]
1/1 [=====] - 0s 276ms/step
12%|          | 218/1796 [01:19<09:31, 2.76it/s]
1/1 [=====] - 0s 262ms/step
12%|          | 219/1796 [01:19<09:28, 2.78it/s]
1/1 [=====] - 0s 263ms/step
12%|          | 220/1796 [01:20<09:23, 2.79it/s]
1/1 [=====] - 0s 279ms/step
12%|          | 221/1796 [01:20<09:48, 2.68it/s]
1/1 [=====] - 0s 265ms/step
12%|          | 222/1796 [01:21<09:40, 2.71it/s]
1/1 [=====] - 0s 262ms/step
12%|          | 223/1796 [01:21<09:31, 2.75it/s]
1/1 [=====] - 0s 273ms/step
12%|          | 224/1796 [01:21<09:32, 2.75it/s]
1/1 [=====] - 0s 273ms/step
13%|          | 225/1796 [01:22<09:35, 2.73it/s]
1/1 [=====] - 0s 263ms/step

```

```

13%|          | 226/1796 [01:22<09:31,  2.75it/s]
1/1 [=====] - 0s 272ms/step
13%|          | 227/1796 [01:22<09:32,  2.74it/s]
1/1 [=====] - 0s 259ms/step
13%|          | 228/1796 [01:23<09:27,  2.76it/s]
1/1 [=====] - 0s 264ms/step
13%|          | 229/1796 [01:23<09:36,  2.72it/s]
1/1 [=====] - 0s 266ms/step
13%|          | 230/1796 [01:23<09:29,  2.75it/s]
1/1 [=====] - 0s 259ms/step
13%|          | 231/1796 [01:24<09:24,  2.77it/s]
1/1 [=====] - 0s 260ms/step
13%|          | 232/1796 [01:24<09:17,  2.81it/s]
1/1 [=====] - 0s 260ms/step
13%|          | 233/1796 [01:24<09:13,  2.82it/s]
1/1 [=====] - 0s 265ms/step
13%|          | 234/1796 [01:25<09:17,  2.80it/s]
1/1 [=====] - 0s 259ms/step
13%|          | 235/1796 [01:25<09:16,  2.81it/s]
1/1 [=====] - 0s 258ms/step
13%|          | 236/1796 [01:26<09:10,  2.83it/s]
1/1 [=====] - 0s 264ms/step
13%|          | 237/1796 [01:26<09:49,  2.65it/s]
1/1 [=====] - 0s 261ms/step
13%|          | 238/1796 [01:26<09:37,  2.70it/s]
1/1 [=====] - 0s 271ms/step
13%|          | 239/1796 [01:27<09:35,  2.71it/s]
1/1 [=====] - 0s 259ms/step
13%|          | 240/1796 [01:27<09:34,  2.71it/s]
1/1 [=====] - 0s 259ms/step
13%|          | 241/1796 [01:27<09:33,  2.71it/s]
1/1 [=====] - 0s 267ms/step

```

```

13%|          | 242/1796 [01:28<09:27,  2.74it/s]
1/1 [=====] - 0s 266ms/step
14%|          | 243/1796 [01:28<09:25,  2.74it/s]
1/1 [=====] - 0s 262ms/step
14%|          | 244/1796 [01:29<09:22,  2.76it/s]
1/1 [=====] - 0s 270ms/step
14%|          | 245/1796 [01:29<09:19,  2.77it/s]
1/1 [=====] - 0s 260ms/step
14%|          | 246/1796 [01:29<09:19,  2.77it/s]
1/1 [=====] - 0s 261ms/step
14%|          | 247/1796 [01:30<09:14,  2.80it/s]
1/1 [=====] - 0s 278ms/step
14%|          | 248/1796 [01:30<09:19,  2.76it/s]
1/1 [=====] - 0s 259ms/step
14%|          | 249/1796 [01:30<09:18,  2.77it/s]
1/1 [=====] - 0s 263ms/step
14%|          | 250/1796 [01:31<09:14,  2.79it/s]
1/1 [=====] - 0s 266ms/step
14%|          | 251/1796 [01:31<09:14,  2.79it/s]
1/1 [=====] - 0s 263ms/step
14%|          | 252/1796 [01:31<09:15,  2.78it/s]
1/1 [=====] - 0s 261ms/step
14%|          | 253/1796 [01:32<09:40,  2.66it/s]
1/1 [=====] - 0s 302ms/step
14%|          | 254/1796 [01:32<09:46,  2.63it/s]
1/1 [=====] - 0s 260ms/step
14%|          | 255/1796 [01:33<09:30,  2.70it/s]
1/1 [=====] - 0s 262ms/step
14%|          | 256/1796 [01:33<09:20,  2.75it/s]
1/1 [=====] - 0s 274ms/step
14%|          | 257/1796 [01:33<09:21,  2.74it/s]
1/1 [=====] - 0s 260ms/step

```

```

14%|          | 258/1796 [01:34<09:14, 2.77it/s]
1/1 [=====] - 0s 263ms/step
14%|          | 259/1796 [01:34<09:11, 2.79it/s]
1/1 [=====] - 0s 263ms/step
14%|          | 260/1796 [01:34<09:08, 2.80it/s]
1/1 [=====] - 0s 259ms/step
15%|          | 261/1796 [01:35<09:09, 2.79it/s]
1/1 [=====] - 0s 270ms/step
15%|          | 262/1796 [01:35<09:07, 2.80it/s]
1/1 [=====] - 0s 264ms/step
15%|          | 263/1796 [01:35<09:02, 2.82it/s]
1/1 [=====] - 0s 263ms/step
15%|          | 264/1796 [01:36<09:07, 2.80it/s]
1/1 [=====] - 0s 290ms/step
15%|          | 265/1796 [01:36<09:27, 2.70it/s]
1/1 [=====] - 0s 275ms/step
15%|          | 266/1796 [01:37<09:24, 2.71it/s]
1/1 [=====] - 0s 261ms/step
15%|          | 267/1796 [01:37<09:14, 2.76it/s]
1/1 [=====] - 0s 261ms/step
15%|          | 268/1796 [01:37<09:18, 2.74it/s]
1/1 [=====] - 0s 277ms/step
15%|          | 269/1796 [01:38<09:29, 2.68it/s]
1/1 [=====] - 0s 282ms/step
15%|          | 270/1796 [01:38<09:28, 2.68it/s]
1/1 [=====] - 0s 263ms/step
15%|          | 271/1796 [01:38<09:19, 2.73it/s]
1/1 [=====] - 0s 270ms/step
15%|          | 272/1796 [01:39<09:17, 2.74it/s]
1/1 [=====] - 0s 265ms/step
15%|          | 273/1796 [01:39<09:11, 2.76it/s]
1/1 [=====] - 0s 261ms/step

```

```

15%|          | 274/1796 [01:39<09:04,  2.80it/s]
1/1 [=====] - 0s 267ms/step
15%|          | 275/1796 [01:40<09:02,  2.81it/s]
1/1 [=====] - 0s 266ms/step
15%|          | 276/1796 [01:40<09:07,  2.78it/s]
1/1 [=====] - 0s 262ms/step
15%|          | 277/1796 [01:41<09:11,  2.76it/s]
1/1 [=====] - 0s 269ms/step
15%|          | 278/1796 [01:41<09:09,  2.76it/s]
1/1 [=====] - 0s 261ms/step
16%|          | 279/1796 [01:41<09:06,  2.77it/s]
1/1 [=====] - 0s 259ms/step
16%|          | 280/1796 [01:42<09:00,  2.80it/s]
1/1 [=====] - 0s 264ms/step
16%|          | 281/1796 [01:42<09:00,  2.80it/s]
1/1 [=====] - 0s 258ms/step
16%|          | 282/1796 [01:42<08:58,  2.81it/s]
1/1 [=====] - 0s 260ms/step
16%|          | 283/1796 [01:43<08:55,  2.83it/s]
1/1 [=====] - 0s 268ms/step
16%|          | 284/1796 [01:43<09:12,  2.74it/s]
1/1 [=====] - 0s 261ms/step
16%|          | 285/1796 [01:43<09:09,  2.75it/s]
1/1 [=====] - 0s 265ms/step
16%|          | 286/1796 [01:44<09:04,  2.77it/s]
1/1 [=====] - 0s 260ms/step
16%|          | 287/1796 [01:44<08:57,  2.80it/s]
1/1 [=====] - 0s 260ms/step
16%|          | 288/1796 [01:44<09:01,  2.79it/s]
1/1 [=====] - 0s 261ms/step
16%|          | 289/1796 [01:45<09:08,  2.75it/s]
1/1 [=====] - 0s 283ms/step

```

```

16%|          | 290/1796 [01:45<09:11,  2.73it/s]
1/1 [=====] - 0s 262ms/step
16%|          | 291/1796 [01:46<09:09,  2.74it/s]
1/1 [=====] - 0s 263ms/step
16%|          | 292/1796 [01:46<09:03,  2.77it/s]
1/1 [=====] - 0s 282ms/step
16%|          | 293/1796 [01:46<09:07,  2.75it/s]
1/1 [=====] - 0s 258ms/step
16%|          | 294/1796 [01:47<09:08,  2.74it/s]
1/1 [=====] - 0s 280ms/step
16%|          | 295/1796 [01:47<09:10,  2.73it/s]
1/1 [=====] - 0s 270ms/step
16%|          | 296/1796 [01:47<09:07,  2.74it/s]
1/1 [=====] - 0s 257ms/step
17%|          | 297/1796 [01:48<09:01,  2.77it/s]
1/1 [=====] - 0s 261ms/step
17%|          | 298/1796 [01:48<08:58,  2.78it/s]
1/1 [=====] - 0s 265ms/step
17%|          | 299/1796 [01:48<09:13,  2.71it/s]
1/1 [=====] - 0s 261ms/step
17%|          | 300/1796 [01:49<09:10,  2.72it/s]
1/1 [=====] - 0s 259ms/step
17%|          | 301/1796 [01:49<09:13,  2.70it/s]
1/1 [=====] - 0s 270ms/step
17%|          | 302/1796 [01:50<09:08,  2.73it/s]
1/1 [=====] - 0s 261ms/step
17%|          | 303/1796 [01:50<09:00,  2.76it/s]
1/1 [=====] - 0s 260ms/step
17%|          | 304/1796 [01:50<08:53,  2.80it/s]
1/1 [=====] - 0s 263ms/step
17%|          | 305/1796 [01:51<08:52,  2.80it/s]
1/1 [=====] - 0s 264ms/step

```

```

17%|          | 306/1796 [01:51<08:55, 2.78it/s]
1/1 [=====] - 0s 263ms/step
17%|          | 307/1796 [01:51<08:51, 2.80it/s]
1/1 [=====] - 0s 267ms/step
17%|          | 308/1796 [01:52<08:50, 2.81it/s]
1/1 [=====] - 0s 262ms/step
17%|          | 309/1796 [01:52<08:53, 2.79it/s]
1/1 [=====] - 0s 263ms/step
17%|          | 310/1796 [01:52<08:49, 2.81it/s]
1/1 [=====] - 0s 270ms/step
17%|          | 311/1796 [01:53<08:52, 2.79it/s]
1/1 [=====] - 0s 293ms/step
17%|          | 312/1796 [01:53<09:21, 2.64it/s]
1/1 [=====] - 0s 270ms/step
17%|          | 313/1796 [01:54<09:28, 2.61it/s]
1/1 [=====] - 0s 288ms/step
17%|          | 314/1796 [01:54<09:43, 2.54it/s]
1/1 [=====] - 0s 264ms/step
18%|          | 315/1796 [01:54<09:29, 2.60it/s]
1/1 [=====] - 0s 267ms/step
18%|          | 316/1796 [01:55<09:15, 2.66it/s]
1/1 [=====] - 0s 304ms/step
18%|          | 317/1796 [01:55<09:33, 2.58it/s]
1/1 [=====] - 0s 268ms/step
18%|          | 318/1796 [01:56<09:18, 2.64it/s]
1/1 [=====] - 0s 258ms/step
18%|          | 319/1796 [01:56<09:06, 2.70it/s]
1/1 [=====] - 0s 278ms/step
18%|          | 320/1796 [01:56<09:03, 2.71it/s]
1/1 [=====] - 0s 275ms/step
18%|          | 321/1796 [01:57<09:03, 2.72it/s]
1/1 [=====] - 0s 262ms/step

```



```

18%|          | 322/1796 [01:57<08:59, 2.73it/s]
1/1 [=====] - 0s 279ms/step
18%|          | 323/1796 [01:57<09:01, 2.72it/s]
1/1 [=====] - 0s 272ms/step
18%|          | 324/1796 [01:58<08:58, 2.74it/s]
1/1 [=====] - 0s 268ms/step
18%|          | 325/1796 [01:58<09:01, 2.71it/s]
1/1 [=====] - 0s 274ms/step
18%|          | 326/1796 [01:58<08:59, 2.73it/s]
1/1 [=====] - 0s 265ms/step
18%|          | 327/1796 [01:59<08:53, 2.76it/s]
1/1 [=====] - 0s 264ms/step
18%|          | 328/1796 [01:59<08:55, 2.74it/s]
1/1 [=====] - 0s 283ms/step
18%|          | 329/1796 [02:00<09:15, 2.64it/s]
1/1 [=====] - 0s 261ms/step
18%|          | 330/1796 [02:00<09:01, 2.71it/s]
1/1 [=====] - 0s 262ms/step
18%|          | 331/1796 [02:00<08:54, 2.74it/s]
1/1 [=====] - 0s 277ms/step
18%|          | 332/1796 [02:01<08:53, 2.75it/s]
1/1 [=====] - 0s 261ms/step
19%|          | 333/1796 [02:01<08:46, 2.78it/s]
1/1 [=====] - 0s 260ms/step
19%|          | 334/1796 [02:01<08:42, 2.80it/s]
1/1 [=====] - 0s 269ms/step
19%|          | 335/1796 [02:02<08:43, 2.79it/s]
1/1 [=====] - 0s 263ms/step
19%|          | 336/1796 [02:02<08:46, 2.77it/s]
1/1 [=====] - 0s 274ms/step
19%|          | 337/1796 [02:02<08:56, 2.72it/s]
1/1 [=====] - 0s 273ms/step

```

```

19%|          | 338/1796 [02:03<08:53, 2.73it/s]
1/1 [=====] - 0s 269ms/step
19%|          | 339/1796 [02:03<08:53, 2.73it/s]
1/1 [=====] - 0s 258ms/step
19%|          | 340/1796 [02:03<08:42, 2.78it/s]
1/1 [=====] - 0s 267ms/step
19%|          | 341/1796 [02:04<08:40, 2.80it/s]
1/1 [=====] - 0s 264ms/step
19%|          | 342/1796 [02:04<08:45, 2.77it/s]
1/1 [=====] - 0s 260ms/step
19%|          | 343/1796 [02:05<08:41, 2.79it/s]
1/1 [=====] - 0s 274ms/step
19%|          | 344/1796 [02:05<09:03, 2.67it/s]
1/1 [=====] - 0s 265ms/step
19%|          | 345/1796 [02:05<08:54, 2.71it/s]
1/1 [=====] - 0s 262ms/step
19%|          | 346/1796 [02:06<08:48, 2.75it/s]
1/1 [=====] - 0s 273ms/step
19%|          | 347/1796 [02:06<08:48, 2.74it/s]
1/1 [=====] - 0s 262ms/step
19%|          | 348/1796 [02:06<08:48, 2.74it/s]
1/1 [=====] - 0s 272ms/step
19%|          | 349/1796 [02:07<08:58, 2.69it/s]
1/1 [=====] - 0s 282ms/step
19%|          | 350/1796 [02:07<09:01, 2.67it/s]
1/1 [=====] - 0s 263ms/step
20%|          | 351/1796 [02:08<08:53, 2.71it/s]
1/1 [=====] - 0s 264ms/step
20%|          | 352/1796 [02:08<08:45, 2.75it/s]
1/1 [=====] - 0s 280ms/step
20%|          | 353/1796 [02:08<08:52, 2.71it/s]
1/1 [=====] - 0s 262ms/step

```

```

20%|          | 354/1796 [02:09<08:45, 2.75it/s]
1/1 [=====] - 0s 267ms/step
20%|          | 355/1796 [02:09<08:47, 2.73it/s]
1/1 [=====] - 0s 271ms/step
20%|          | 356/1796 [02:09<08:45, 2.74it/s]
1/1 [=====] - 0s 261ms/step
20%|          | 357/1796 [02:10<08:39, 2.77it/s]
1/1 [=====] - 0s 265ms/step
20%|          | 358/1796 [02:10<08:36, 2.79it/s]
1/1 [=====] - 0s 280ms/step
20%|          | 359/1796 [02:10<08:58, 2.67it/s]
1/1 [=====] - 0s 262ms/step
20%|          | 360/1796 [02:11<08:55, 2.68it/s]
1/1 [=====] - 0s 260ms/step
20%|          | 361/1796 [02:11<08:57, 2.67it/s]
1/1 [=====] - 0s 275ms/step
20%|          | 362/1796 [02:12<08:50, 2.70it/s]
1/1 [=====] - 0s 260ms/step
20%|          | 363/1796 [02:12<08:41, 2.75it/s]
1/1 [=====] - 0s 262ms/step
20%|          | 364/1796 [02:12<08:34, 2.78it/s]
1/1 [=====] - 0s 266ms/step
20%|          | 365/1796 [02:13<08:33, 2.79it/s]
1/1 [=====] - 0s 269ms/step
20%|          | 366/1796 [02:13<08:36, 2.77it/s]
1/1 [=====] - 0s 260ms/step
20%|          | 367/1796 [02:13<08:31, 2.80it/s]
1/1 [=====] - 0s 262ms/step
20%|          | 368/1796 [02:14<08:28, 2.81it/s]
1/1 [=====] - 0s 263ms/step
21%|          | 369/1796 [02:14<08:31, 2.79it/s]
1/1 [=====] - 0s 311ms/step

```

```

21%|          | 370/1796 [02:14<08:54, 2.67it/s]
1/1 [=====] - 0s 292ms/step
21%|          | 371/1796 [02:15<09:02, 2.63it/s]
1/1 [=====] - 0s 265ms/step
21%|          | 372/1796 [02:15<08:54, 2.66it/s]
1/1 [=====] - 0s 262ms/step
21%|          | 373/1796 [02:16<08:53, 2.67it/s]
1/1 [=====] - 0s 301ms/step
21%|          | 374/1796 [02:16<09:20, 2.54it/s]
1/1 [=====] - 0s 259ms/step
21%|          | 375/1796 [02:16<09:01, 2.63it/s]
1/1 [=====] - 0s 262ms/step
21%|          | 376/1796 [02:17<08:49, 2.68it/s]
1/1 [=====] - 0s 295ms/step
21%|          | 377/1796 [02:17<08:53, 2.66it/s]
1/1 [=====] - 0s 266ms/step
21%|          | 378/1796 [02:18<08:48, 2.68it/s]
1/1 [=====] - 0s 260ms/step
21%|          | 379/1796 [02:18<08:39, 2.73it/s]
1/1 [=====] - 0s 283ms/step
21%|          | 380/1796 [02:18<08:42, 2.71it/s]
1/1 [=====] - 0s 267ms/step
21%|          | 381/1796 [02:19<08:37, 2.73it/s]
1/1 [=====] - 0s 262ms/step
21%|          | 382/1796 [02:19<08:39, 2.72it/s]
1/1 [=====] - 0s 282ms/step
21%|          | 383/1796 [02:19<08:44, 2.70it/s]
1/1 [=====] - 0s 262ms/step
21%|          | 384/1796 [02:20<08:36, 2.73it/s]
1/1 [=====] - 0s 271ms/step
21%|          | 385/1796 [02:20<08:43, 2.70it/s]
1/1 [=====] - 0s 278ms/step

```

```

21%|          | 386/1796 [02:20<08:44, 2.69it/s]
1/1 [=====] - 0s 258ms/step
22%|          | 387/1796 [02:21<08:34, 2.74it/s]
1/1 [=====] - 0s 259ms/step
22%|          | 388/1796 [02:21<08:27, 2.77it/s]
1/1 [=====] - 0s 277ms/step
22%|          | 389/1796 [02:22<08:50, 2.65it/s]
1/1 [=====] - 0s 262ms/step
22%|          | 390/1796 [02:22<08:41, 2.70it/s]
1/1 [=====] - 0s 264ms/step
22%|          | 391/1796 [02:22<08:32, 2.74it/s]
1/1 [=====] - 0s 274ms/step
22%|          | 392/1796 [02:23<08:35, 2.72it/s]
1/1 [=====] - 0s 260ms/step
22%|          | 393/1796 [02:23<08:29, 2.76it/s]
1/1 [=====] - 0s 261ms/step
22%|          | 394/1796 [02:23<08:25, 2.77it/s]
1/1 [=====] - 0s 269ms/step
22%|          | 395/1796 [02:24<08:27, 2.76it/s]
1/1 [=====] - 0s 261ms/step
22%|          | 396/1796 [02:24<08:26, 2.76it/s]
1/1 [=====] - 0s 261ms/step
22%|          | 397/1796 [02:24<08:31, 2.73it/s]
1/1 [=====] - 0s 270ms/step
22%|          | 398/1796 [02:25<08:33, 2.72it/s]
1/1 [=====] - 0s 265ms/step
22%|          | 399/1796 [02:25<08:31, 2.73it/s]
1/1 [=====] - 0s 262ms/step
22%|          | 400/1796 [02:26<08:26, 2.75it/s]
1/1 [=====] - 0s 268ms/step
22%|          | 401/1796 [02:26<08:24, 2.76it/s]
1/1 [=====] - 0s 260ms/step

```

```

22%|          | 402/1796 [02:26<08:22, 2.78it/s]
1/1 [=====] - 0s 266ms/step
22%|          | 403/1796 [02:27<08:36, 2.69it/s]
1/1 [=====] - 0s 282ms/step
22%|          | 404/1796 [02:27<08:42, 2.66it/s]
1/1 [=====] - 0s 279ms/step
23%|          | 405/1796 [02:27<08:40, 2.67it/s]
1/1 [=====] - 0s 262ms/step
23%|          | 406/1796 [02:28<08:34, 2.70it/s]
1/1 [=====] - 0s 282ms/step
23%|          | 407/1796 [02:28<08:33, 2.70it/s]
1/1 [=====] - 0s 263ms/step
23%|          | 408/1796 [02:29<08:27, 2.74it/s]
1/1 [=====] - 0s 263ms/step
23%|          | 409/1796 [02:29<08:31, 2.71it/s]
1/1 [=====] - 0s 279ms/step
23%|          | 410/1796 [02:29<08:30, 2.72it/s]
1/1 [=====] - 0s 261ms/step
23%|          | 411/1796 [02:30<08:25, 2.74it/s]
1/1 [=====] - 0s 265ms/step
23%|          | 412/1796 [02:30<08:21, 2.76it/s]
1/1 [=====] - 0s 273ms/step
23%|          | 413/1796 [02:30<08:22, 2.75it/s]
1/1 [=====] - 0s 260ms/step
23%|          | 414/1796 [02:31<08:19, 2.76it/s]
1/1 [=====] - 0s 262ms/step
23%|          | 415/1796 [02:31<08:34, 2.68it/s]
1/1 [=====] - 0s 275ms/step
23%|          | 416/1796 [02:31<08:30, 2.70it/s]
1/1 [=====] - 0s 266ms/step
23%|          | 417/1796 [02:32<08:28, 2.71it/s]
1/1 [=====] - 0s 261ms/step

```

```

23%|          | 418/1796 [02:32<08:20, 2.75it/s]
1/1 [=====] - 0s 273ms/step
23%|          | 419/1796 [02:33<08:18, 2.76it/s]
1/1 [=====] - 0s 259ms/step
23%|          | 420/1796 [02:33<08:17, 2.76it/s]
1/1 [=====] - 0s 262ms/step
23%|          | 421/1796 [02:33<08:22, 2.73it/s]
1/1 [=====] - 0s 278ms/step
23%|          | 422/1796 [02:34<08:25, 2.72it/s]
1/1 [=====] - 0s 269ms/step
24%|          | 423/1796 [02:34<08:21, 2.74it/s]
1/1 [=====] - 0s 263ms/step
24%|          | 424/1796 [02:34<08:15, 2.77it/s]
1/1 [=====] - 0s 270ms/step
24%|          | 425/1796 [02:35<08:14, 2.77it/s]
1/1 [=====] - 0s 264ms/step
24%|          | 426/1796 [02:35<08:14, 2.77it/s]
1/1 [=====] - 0s 270ms/step
24%|          | 427/1796 [02:35<08:28, 2.69it/s]
1/1 [=====] - 0s 280ms/step
24%|          | 428/1796 [02:36<08:27, 2.69it/s]
1/1 [=====] - 0s 266ms/step
24%|          | 429/1796 [02:36<08:21, 2.72it/s]
1/1 [=====] - 0s 260ms/step
24%|          | 430/1796 [02:37<08:16, 2.75it/s]
1/1 [=====] - 0s 273ms/step
24%|          | 431/1796 [02:37<08:17, 2.75it/s]
1/1 [=====] - 0s 260ms/step
24%|          | 432/1796 [02:37<08:13, 2.76it/s]
1/1 [=====] - 0s 272ms/step
24%|          | 433/1796 [02:38<08:22, 2.71it/s]
1/1 [=====] - 0s 280ms/step

```

```

24%|          | 434/1796 [02:38<08:25, 2.70it/s]
1/1 [=====] - 0s 261ms/step
24%|          | 435/1796 [02:38<08:20, 2.72it/s]
1/1 [=====] - 0s 262ms/step
24%|          | 436/1796 [02:39<08:13, 2.76it/s]
1/1 [=====] - 0s 270ms/step
24%|          | 437/1796 [02:39<08:11, 2.76it/s]
1/1 [=====] - 0s 259ms/step
24%|          | 438/1796 [02:39<08:09, 2.78it/s]
1/1 [=====] - 0s 259ms/step
24%|          | 439/1796 [02:40<08:03, 2.81it/s]
1/1 [=====] - 0s 268ms/step
24%|          | 440/1796 [02:40<08:04, 2.80it/s]
1/1 [=====] - 0s 265ms/step
25%|          | 441/1796 [02:41<08:27, 2.67it/s]
1/1 [=====] - 0s 263ms/step
25%|          | 442/1796 [02:41<08:19, 2.71it/s]
1/1 [=====] - 0s 257ms/step
25%|          | 443/1796 [02:41<08:13, 2.74it/s]
1/1 [=====] - 0s 310ms/step
25%|          | 444/1796 [02:42<08:35, 2.62it/s]
1/1 [=====] - 0s 297ms/step
25%|          | 445/1796 [02:42<08:53, 2.53it/s]
1/1 [=====] - 0s 323ms/step
25%|          | 446/1796 [02:43<09:01, 2.49it/s]
1/1 [=====] - 0s 271ms/step
25%|          | 447/1796 [02:43<08:49, 2.55it/s]
1/1 [=====] - 0s 292ms/step
25%|          | 448/1796 [02:43<08:52, 2.53it/s]
1/1 [=====] - 0s 309ms/step
25%|          | 449/1796 [02:44<09:03, 2.48it/s]
1/1 [=====] - 0s 295ms/step

```



```

25%|          | 450/1796 [02:44<09:02, 2.48it/s]
1/1 [=====] - 0s 264ms/step
25%|          | 451/1796 [02:45<08:42, 2.57it/s]
1/1 [=====] - 0s 278ms/step
25%|          | 452/1796 [02:45<08:31, 2.63it/s]
1/1 [=====] - 0s 261ms/step
25%|          | 453/1796 [02:45<08:23, 2.67it/s]
1/1 [=====] - 0s 264ms/step
25%|          | 454/1796 [02:46<08:30, 2.63it/s]
1/1 [=====] - 0s 284ms/step
25%|          | 455/1796 [02:46<08:28, 2.64it/s]
1/1 [=====] - 0s 264ms/step
25%|          | 456/1796 [02:46<08:19, 2.68it/s]
1/1 [=====] - 0s 263ms/step
25%|          | 457/1796 [02:47<08:20, 2.68it/s]
1/1 [=====] - 0s 285ms/step
26%|          | 458/1796 [02:47<08:20, 2.68it/s]
1/1 [=====] - 0s 261ms/step
26%|          | 459/1796 [02:47<08:12, 2.72it/s]
1/1 [=====] - 0s 270ms/step
26%|          | 460/1796 [02:48<08:08, 2.74it/s]
1/1 [=====] - 0s 285ms/step
26%|          | 461/1796 [02:48<08:14, 2.70it/s]
1/1 [=====] - 0s 263ms/step
26%|          | 462/1796 [02:49<08:07, 2.74it/s]
1/1 [=====] - 0s 264ms/step
26%|          | 463/1796 [02:49<08:03, 2.76it/s]
1/1 [=====] - 0s 271ms/step
26%|          | 464/1796 [02:49<08:02, 2.76it/s]
1/1 [=====] - 0s 264ms/step
26%|          | 465/1796 [02:50<08:02, 2.76it/s]
1/1 [=====] - 0s 263ms/step

```

```

26%|          | 466/1796 [02:50<08:12, 2.70it/s]
1/1 [=====] - 0s 279ms/step
26%|          | 467/1796 [02:50<08:10, 2.71it/s]
1/1 [=====] - 0s 264ms/step
26%|          | 468/1796 [02:51<08:06, 2.73it/s]
1/1 [=====] - 0s 288ms/step
26%|          | 469/1796 [02:51<08:20, 2.65it/s]
1/1 [=====] - 0s 277ms/step
26%|          | 470/1796 [02:52<08:17, 2.67it/s]
1/1 [=====] - 0s 266ms/step
26%|          | 471/1796 [02:52<08:08, 2.71it/s]
1/1 [=====] - 0s 258ms/step
26%|          | 472/1796 [02:52<07:58, 2.77it/s]
1/1 [=====] - 0s 268ms/step
26%|          | 473/1796 [02:53<07:56, 2.77it/s]
1/1 [=====] - 0s 259ms/step
26%|          | 474/1796 [02:53<07:53, 2.79it/s]
1/1 [=====] - 0s 261ms/step
26%|          | 475/1796 [02:53<07:51, 2.80it/s]
1/1 [=====] - 0s 267ms/step
27%|          | 476/1796 [02:54<07:49, 2.81it/s]
1/1 [=====] - 0s 269ms/step
27%|          | 477/1796 [02:54<07:58, 2.75it/s]
1/1 [=====] - 0s 257ms/step
27%|          | 478/1796 [02:54<07:51, 2.80it/s]
1/1 [=====] - 0s 281ms/step
27%|          | 479/1796 [02:55<08:16, 2.65it/s]
1/1 [=====] - 0s 261ms/step
27%|          | 480/1796 [02:55<08:06, 2.70it/s]
1/1 [=====] - 0s 267ms/step
27%|          | 481/1796 [02:56<08:08, 2.69it/s]
1/1 [=====] - 0s 278ms/step

```

```

27%|          | 482/1796 [02:56<08:08, 2.69it/s]
1/1 [=====] - 0s 261ms/step
27%|          | 483/1796 [02:56<08:04, 2.71it/s]
1/1 [=====] - 0s 258ms/step
27%|          | 484/1796 [02:57<07:54, 2.77it/s]
1/1 [=====] - 0s 266ms/step
27%|          | 485/1796 [02:57<07:51, 2.78it/s]
1/1 [=====] - 0s 262ms/step
27%|          | 486/1796 [02:57<07:50, 2.78it/s]
1/1 [=====] - 0s 260ms/step
27%|          | 487/1796 [02:58<07:46, 2.80it/s]
1/1 [=====] - 0s 270ms/step
27%|          | 488/1796 [02:58<07:48, 2.79it/s]
1/1 [=====] - 0s 264ms/step
27%|          | 489/1796 [02:58<07:57, 2.74it/s]
1/1 [=====] - 0s 259ms/step
27%|          | 490/1796 [02:59<07:53, 2.76it/s]
1/1 [=====] - 0s 275ms/step
27%|          | 491/1796 [02:59<08:11, 2.65it/s]
1/1 [=====] - 0s 293ms/step
27%|          | 492/1796 [03:00<08:21, 2.60it/s]
1/1 [=====] - 0s 328ms/step
27%|          | 493/1796 [03:00<08:55, 2.43it/s]
1/1 [=====] - 0s 342ms/step
28%|          | 494/1796 [03:01<09:19, 2.33it/s]
1/1 [=====] - 0s 307ms/step
28%|          | 495/1796 [03:01<09:22, 2.31it/s]
1/1 [=====] - 0s 320ms/step
28%|          | 496/1796 [03:01<09:21, 2.32it/s]
1/1 [=====] - 0s 278ms/step
28%|          | 497/1796 [03:02<09:04, 2.38it/s]
1/1 [=====] - 0s 279ms/step

```

28%| | 498/1796 [03:02<08:47, 2.46it/s]
 1/1 [=====] - 0s 305ms/step
 28%| | 499/1796 [03:03<09:02, 2.39it/s]
 1/1 [=====] - 0s 281ms/step
 28%| | 500/1796 [03:03<09:02, 2.39it/s]
 1/1 [=====] - 0s 291ms/step
 28%| | 501/1796 [03:03<09:06, 2.37it/s]
 1/1 [=====] - 0s 307ms/step
 28%| | 502/1796 [03:04<09:14, 2.33it/s]
 1/1 [=====] - 0s 284ms/step
 28%| | 503/1796 [03:04<09:33, 2.25it/s]
 1/1 [=====] - 0s 302ms/step
 28%| | 504/1796 [03:05<09:32, 2.26it/s]
 1/1 [=====] - 0s 298ms/step
 28%| | 505/1796 [03:05<09:42, 2.22it/s]
 1/1 [=====] - 0s 270ms/step
 28%| | 506/1796 [03:06<09:06, 2.36it/s]
 1/1 [=====] - 0s 293ms/step
 28%| | 507/1796 [03:06<08:52, 2.42it/s]
 1/1 [=====] - 0s 262ms/step
 28%| | 508/1796 [03:06<09:02, 2.37it/s]
 1/1 [=====] - 0s 256ms/step
 28%| | 509/1796 [03:07<08:36, 2.49it/s]
 1/1 [=====] - 0s 287ms/step
 28%| | 510/1796 [03:07<08:30, 2.52it/s]
 1/1 [=====] - 0s 266ms/step
 28%| | 511/1796 [03:08<08:16, 2.59it/s]
 1/1 [=====] - 0s 258ms/step
 29%| | 512/1796 [03:08<08:01, 2.67it/s]
 1/1 [=====] - 0s 299ms/step
 29%| | 513/1796 [03:08<08:07, 2.63it/s]
 1/1 [=====] - 0s 264ms/step

```

29%|          | 514/1796 [03:09<08:00, 2.67it/s]
1/1 [=====] - 0s 261ms/step
29%|          | 515/1796 [03:09<07:52, 2.71it/s]
1/1 [=====] - 0s 291ms/step
29%|          | 516/1796 [03:09<08:12, 2.60it/s]
1/1 [=====] - 0s 258ms/step
29%|          | 517/1796 [03:10<08:06, 2.63it/s]
1/1 [=====] - 0s 267ms/step
29%|          | 518/1796 [03:10<07:57, 2.68it/s]
1/1 [=====] - 0s 288ms/step
29%|          | 519/1796 [03:11<07:59, 2.66it/s]
1/1 [=====] - 0s 264ms/step
29%|          | 520/1796 [03:11<07:50, 2.71it/s]
1/1 [=====] - 0s 257ms/step
29%|          | 521/1796 [03:11<07:41, 2.76it/s]
1/1 [=====] - 0s 280ms/step
29%|          | 522/1796 [03:12<07:42, 2.75it/s]
1/1 [=====] - 0s 267ms/step
29%|          | 523/1796 [03:12<07:40, 2.77it/s]
1/1 [=====] - 0s 261ms/step
29%|          | 524/1796 [03:12<07:33, 2.81it/s]
1/1 [=====] - 0s 272ms/step
29%|          | 525/1796 [03:13<07:34, 2.80it/s]
1/1 [=====] - 0s 262ms/step
29%|          | 526/1796 [03:13<07:34, 2.79it/s]
1/1 [=====] - 0s 261ms/step
29%|          | 527/1796 [03:13<07:32, 2.80it/s]
1/1 [=====] - 0s 284ms/step
29%|          | 528/1796 [03:14<08:01, 2.63it/s]
1/1 [=====] - 0s 264ms/step
29%|          | 529/1796 [03:14<08:01, 2.63it/s]
1/1 [=====] - 0s 261ms/step

```

```

30%|          | 530/1796 [03:15<07:48, 2.70it/s]
1/1 [=====] - 0s 281ms/step
30%|          | 531/1796 [03:15<07:47, 2.70it/s]
1/1 [=====] - 0s 301ms/step
30%|          | 532/1796 [03:15<07:59, 2.64it/s]
1/1 [=====] - 0s 286ms/step
30%|          | 533/1796 [03:16<08:07, 2.59it/s]
1/1 [=====] - 0s 293ms/step
30%|          | 534/1796 [03:16<08:12, 2.56it/s]
1/1 [=====] - 0s 261ms/step
30%|          | 535/1796 [03:16<07:55, 2.65it/s]
1/1 [=====] - 0s 261ms/step
30%|          | 536/1796 [03:17<07:46, 2.70it/s]
1/1 [=====] - 0s 284ms/step
30%|          | 537/1796 [03:17<07:47, 2.69it/s]
1/1 [=====] - 0s 259ms/step
30%|          | 538/1796 [03:18<07:38, 2.74it/s]
1/1 [=====] - 0s 258ms/step
30%|          | 539/1796 [03:18<07:33, 2.77it/s]
1/1 [=====] - 0s 275ms/step
30%|          | 540/1796 [03:18<07:36, 2.75it/s]
1/1 [=====] - 0s 272ms/step
30%|          | 541/1796 [03:19<08:04, 2.59it/s]
1/1 [=====] - 0s 266ms/step
30%|          | 542/1796 [03:19<07:54, 2.64it/s]
1/1 [=====] - 0s 285ms/step
30%|          | 543/1796 [03:19<07:51, 2.66it/s]
1/1 [=====] - 0s 258ms/step
30%|          | 544/1796 [03:20<07:41, 2.71it/s]
1/1 [=====] - 0s 266ms/step
30%|          | 545/1796 [03:20<07:38, 2.73it/s]
1/1 [=====] - 0s 282ms/step

```

```

30%|          | 546/1796 [03:21<07:39, 2.72it/s]
1/1 [=====] - 0s 259ms/step
30%|          | 547/1796 [03:21<07:32, 2.76it/s]
1/1 [=====] - 0s 260ms/step
31%|          | 548/1796 [03:21<07:27, 2.79it/s]
1/1 [=====] - 0s 267ms/step
31%|          | 549/1796 [03:22<07:27, 2.79it/s]
1/1 [=====] - 0s 264ms/step
31%|          | 550/1796 [03:22<07:29, 2.77it/s]
1/1 [=====] - 0s 259ms/step
31%|          | 551/1796 [03:22<07:23, 2.81it/s]
1/1 [=====] - 0s 269ms/step
31%|          | 552/1796 [03:23<07:27, 2.78it/s]
1/1 [=====] - 0s 273ms/step
31%|          | 553/1796 [03:23<07:41, 2.70it/s]
1/1 [=====] - 0s 260ms/step
31%|          | 554/1796 [03:23<07:32, 2.74it/s]
1/1 [=====] - 0s 283ms/step
31%|          | 555/1796 [03:24<07:53, 2.62it/s]
1/1 [=====] - 0s 260ms/step
31%|          | 556/1796 [03:24<07:40, 2.69it/s]
1/1 [=====] - 0s 259ms/step
31%|          | 557/1796 [03:25<07:31, 2.74it/s]
1/1 [=====] - 0s 272ms/step
31%|          | 558/1796 [03:25<07:31, 2.74it/s]
1/1 [=====] - 0s 264ms/step
31%|          | 559/1796 [03:25<07:29, 2.75it/s]
1/1 [=====] - 0s 260ms/step
31%|          | 560/1796 [03:26<07:24, 2.78it/s]
1/1 [=====] - 0s 274ms/step
31%|          | 561/1796 [03:26<07:26, 2.76it/s]
1/1 [=====] - 0s 261ms/step

```

```

31%|          | 562/1796 [03:26<07:25, 2.77it/s]
1/1 [=====] - 0s 264ms/step
31%|          | 563/1796 [03:27<07:23, 2.78it/s]
1/1 [=====] - 0s 268ms/step
31%|          | 564/1796 [03:27<07:24, 2.77it/s]
1/1 [=====] - 0s 262ms/step
31%|          | 565/1796 [03:27<07:33, 2.71it/s]
1/1 [=====] - 0s 261ms/step
32%|          | 566/1796 [03:28<07:26, 2.75it/s]
1/1 [=====] - 0s 285ms/step
32%|          | 567/1796 [03:28<07:45, 2.64it/s]
1/1 [=====] - 0s 260ms/step
32%|          | 568/1796 [03:29<07:34, 2.70it/s]
1/1 [=====] - 0s 281ms/step
32%|          | 569/1796 [03:29<07:35, 2.69it/s]
1/1 [=====] - 0s 277ms/step
32%|          | 570/1796 [03:29<07:36, 2.68it/s]
1/1 [=====] - 0s 260ms/step
32%|          | 571/1796 [03:30<07:31, 2.71it/s]
1/1 [=====] - 0s 265ms/step
32%|          | 572/1796 [03:30<07:27, 2.74it/s]
1/1 [=====] - 0s 292ms/step
32%|          | 573/1796 [03:30<07:34, 2.69it/s]
1/1 [=====] - 0s 283ms/step
32%|          | 574/1796 [03:31<07:53, 2.58it/s]
1/1 [=====] - 0s 281ms/step
32%|          | 575/1796 [03:31<08:04, 2.52it/s]
1/1 [=====] - 0s 328ms/step
32%|          | 576/1796 [03:32<08:40, 2.35it/s]
1/1 [=====] - 0s 284ms/step
32%|          | 577/1796 [03:32<08:50, 2.30it/s]
1/1 [=====] - 0s 290ms/step

```



```

32%|          | 578/1796 [03:33<08:47, 2.31it/s]
1/1 [=====] - 0s 286ms/step
32%|          | 579/1796 [03:33<08:44, 2.32it/s]
1/1 [=====] - 0s 295ms/step
32%|          | 580/1796 [03:34<08:43, 2.32it/s]
1/1 [=====] - 0s 289ms/step
32%|          | 581/1796 [03:34<08:23, 2.41it/s]
1/1 [=====] - 0s 259ms/step
32%|          | 582/1796 [03:34<08:03, 2.51it/s]
1/1 [=====] - 0s 262ms/step
32%|          | 583/1796 [03:35<07:45, 2.60it/s]
1/1 [=====] - 0s 284ms/step
33%|          | 584/1796 [03:35<07:42, 2.62it/s]
1/1 [=====] - 0s 260ms/step
33%|          | 585/1796 [03:35<07:44, 2.61it/s]
1/1 [=====] - 0s 263ms/step
33%|          | 586/1796 [03:36<07:34, 2.66it/s]
1/1 [=====] - 0s 283ms/step
33%|          | 587/1796 [03:36<07:32, 2.67it/s]
1/1 [=====] - 0s 261ms/step
33%|          | 588/1796 [03:36<07:24, 2.72it/s]
1/1 [=====] - 0s 259ms/step
33%|          | 589/1796 [03:37<07:27, 2.70it/s]
1/1 [=====] - 0s 296ms/step
33%|          | 590/1796 [03:37<07:43, 2.60it/s]
1/1 [=====] - 0s 265ms/step
33%|          | 591/1796 [03:38<07:38, 2.63it/s]
1/1 [=====] - 0s 261ms/step
33%|          | 592/1796 [03:38<07:28, 2.68it/s]
1/1 [=====] - 0s 277ms/step
33%|          | 593/1796 [03:38<07:28, 2.68it/s]
1/1 [=====] - 0s 261ms/step

```

```

33%|          | 594/1796 [03:39<07:21, 2.72it/s]
1/1 [=====] - 0s 266ms/step
33%|          | 595/1796 [03:39<07:16, 2.75it/s]
1/1 [=====] - 0s 280ms/step
33%|          | 596/1796 [03:39<07:27, 2.68it/s]
1/1 [=====] - 0s 286ms/step
33%|          | 597/1796 [03:40<07:45, 2.57it/s]
1/1 [=====] - 0s 267ms/step
33%|          | 598/1796 [03:40<07:42, 2.59it/s]
1/1 [=====] - 0s 282ms/step
33%|          | 599/1796 [03:41<07:36, 2.62it/s]
1/1 [=====] - 0s 260ms/step
33%|          | 600/1796 [03:41<07:26, 2.68it/s]
1/1 [=====] - 0s 260ms/step
33%|          | 601/1796 [03:41<07:28, 2.67it/s]
1/1 [=====] - 0s 283ms/step
34%|          | 602/1796 [03:42<07:27, 2.67it/s]
1/1 [=====] - 0s 262ms/step
34%|          | 603/1796 [03:42<07:19, 2.71it/s]
1/1 [=====] - 0s 260ms/step
34%|          | 604/1796 [03:42<07:15, 2.74it/s]
1/1 [=====] - 0s 274ms/step
34%|          | 605/1796 [03:43<07:15, 2.74it/s]
1/1 [=====] - 0s 262ms/step
34%|          | 606/1796 [03:43<07:27, 2.66it/s]
1/1 [=====] - 0s 263ms/step
34%|          | 607/1796 [03:44<07:18, 2.71it/s]
1/1 [=====] - 0s 286ms/step
34%|          | 608/1796 [03:44<07:20, 2.70it/s]
1/1 [=====] - 0s 263ms/step
34%|          | 609/1796 [03:44<07:16, 2.72it/s]
1/1 [=====] - 0s 258ms/step

```

```

34%|          | 610/1796 [03:45<07:08, 2.77it/s]
1/1 [=====] - 0s 279ms/step
34%|          | 611/1796 [03:45<07:12, 2.74it/s]
1/1 [=====] - 0s 269ms/step
34%|          | 612/1796 [03:45<07:15, 2.72it/s]
1/1 [=====] - 0s 261ms/step
34%|          | 613/1796 [03:46<07:19, 2.69it/s]
1/1 [=====] - 0s 283ms/step
34%|          | 614/1796 [03:46<07:33, 2.61it/s]
1/1 [=====] - 0s 257ms/step
34%|          | 615/1796 [03:47<07:20, 2.68it/s]
1/1 [=====] - 0s 266ms/step
34%|          | 616/1796 [03:47<07:12, 2.73it/s]
1/1 [=====] - 0s 278ms/step
34%|          | 617/1796 [03:47<07:15, 2.71it/s]
1/1 [=====] - 0s 258ms/step
34%|          | 618/1796 [03:48<07:07, 2.76it/s]
1/1 [=====] - 0s 273ms/step
34%|          | 619/1796 [03:48<07:08, 2.75it/s]
1/1 [=====] - 0s 276ms/step
35%|          | 620/1796 [03:48<07:10, 2.73it/s]
1/1 [=====] - 0s 257ms/step
35%|          | 621/1796 [03:49<07:02, 2.78it/s]
1/1 [=====] - 0s 262ms/step
35%|          | 622/1796 [03:49<07:14, 2.70it/s]
1/1 [=====] - 0s 299ms/step
35%|          | 623/1796 [03:49<07:23, 2.64it/s]
1/1 [=====] - 0s 264ms/step
35%|          | 624/1796 [03:50<07:18, 2.67it/s]
1/1 [=====] - 0s 261ms/step
35%|          | 625/1796 [03:50<07:21, 2.65it/s]
1/1 [=====] - 0s 290ms/step

```

```

35%|          | 626/1796 [03:51<07:30, 2.60it/s]
1/1 [=====] - 0s 259ms/step
35%|          | 627/1796 [03:51<07:18, 2.67it/s]
1/1 [=====] - 0s 261ms/step
35%|          | 628/1796 [03:51<07:08, 2.73it/s]
1/1 [=====] - 0s 283ms/step
35%|          | 629/1796 [03:52<07:09, 2.72it/s]
1/1 [=====] - 0s 269ms/step
35%|          | 630/1796 [03:52<07:23, 2.63it/s]
1/1 [=====] - 0s 261ms/step
35%|          | 631/1796 [03:52<07:12, 2.69it/s]
1/1 [=====] - 0s 278ms/step
35%|          | 632/1796 [03:53<07:11, 2.70it/s]
1/1 [=====] - 0s 266ms/step
35%|          | 633/1796 [03:53<07:08, 2.72it/s]
1/1 [=====] - 0s 260ms/step
35%|          | 634/1796 [03:54<07:01, 2.75it/s]
1/1 [=====] - 0s 279ms/step
35%|          | 635/1796 [03:54<07:03, 2.74it/s]
1/1 [=====] - 0s 262ms/step
35%|          | 636/1796 [03:54<07:00, 2.76it/s]
1/1 [=====] - 0s 265ms/step
35%|          | 637/1796 [03:55<07:07, 2.71it/s]
1/1 [=====] - 0s 285ms/step
36%|          | 638/1796 [03:55<07:23, 2.61it/s]
1/1 [=====] - 0s 263ms/step
36%|          | 639/1796 [03:55<07:12, 2.67it/s]
1/1 [=====] - 0s 263ms/step
36%|          | 640/1796 [03:56<07:08, 2.70it/s]
1/1 [=====] - 0s 292ms/step
36%|          | 641/1796 [03:56<07:11, 2.67it/s]
1/1 [=====] - 0s 262ms/step

```

```

36%|          | 642/1796 [03:57<07:03, 2.72it/s]
1/1 [=====] - 0s 271ms/step
36%|          | 643/1796 [03:57<07:03, 2.72it/s]
1/1 [=====] - 0s 280ms/step
36%|          | 644/1796 [03:57<07:05, 2.71it/s]
1/1 [=====] - 0s 261ms/step
36%|          | 645/1796 [03:58<07:01, 2.73it/s]
1/1 [=====] - 0s 262ms/step
36%|          | 646/1796 [03:58<07:15, 2.64it/s]
1/1 [=====] - 0s 288ms/step
36%|          | 647/1796 [03:58<07:13, 2.65it/s]
1/1 [=====] - 0s 261ms/step
36%|          | 648/1796 [03:59<07:04, 2.71it/s]
1/1 [=====] - 0s 261ms/step
36%|          | 649/1796 [03:59<07:06, 2.69it/s]
1/1 [=====] - 0s 282ms/step
36%|          | 650/1796 [03:59<07:07, 2.68it/s]
1/1 [=====] - 0s 275ms/step
36%|          | 651/1796 [04:00<07:07, 2.68it/s]
1/1 [=====] - 0s 264ms/step
36%|          | 652/1796 [04:00<06:59, 2.72it/s]
1/1 [=====] - 0s 282ms/step
36%|          | 653/1796 [04:01<07:17, 2.62it/s]
1/1 [=====] - 0s 268ms/step
36%|          | 654/1796 [04:01<07:09, 2.66it/s]
1/1 [=====] - 0s 259ms/step
36%|          | 655/1796 [04:01<06:59, 2.72it/s]
1/1 [=====] - 0s 281ms/step
37%|          | 656/1796 [04:02<07:02, 2.70it/s]
1/1 [=====] - 0s 267ms/step
37%|          | 657/1796 [04:02<06:58, 2.72it/s]
1/1 [=====] - 0s 263ms/step

```

```

37%|          | 658/1796 [04:02<06:53, 2.76it/s]
1/1 [=====] - 0s 282ms/step
37%|          | 659/1796 [04:03<06:58, 2.72it/s]
1/1 [=====] - 0s 259ms/step
37%|          | 660/1796 [04:03<06:54, 2.74it/s]
1/1 [=====] - 0s 257ms/step
37%|          | 661/1796 [04:04<07:14, 2.61it/s]
1/1 [=====] - 0s 285ms/step
37%|          | 662/1796 [04:04<07:16, 2.60it/s]
1/1 [=====] - 0s 285ms/step
37%|          | 663/1796 [04:04<07:12, 2.62it/s]
1/1 [=====] - 0s 262ms/step
37%|          | 664/1796 [04:05<07:01, 2.68it/s]
1/1 [=====] - 0s 284ms/step
37%|          | 665/1796 [04:05<07:03, 2.67it/s]
1/1 [=====] - 0s 258ms/step
37%|          | 666/1796 [04:05<06:53, 2.73it/s]
1/1 [=====] - 0s 262ms/step
37%|          | 667/1796 [04:06<06:50, 2.75it/s]
1/1 [=====] - 0s 278ms/step
37%|          | 668/1796 [04:06<06:52, 2.73it/s]
1/1 [=====] - 0s 259ms/step
37%|          | 669/1796 [04:07<07:03, 2.66it/s]
1/1 [=====] - 0s 265ms/step
37%|          | 670/1796 [04:07<06:58, 2.69it/s]
1/1 [=====] - 0s 282ms/step
37%|          | 671/1796 [04:07<06:57, 2.69it/s]
1/1 [=====] - 0s 260ms/step
37%|          | 672/1796 [04:08<06:50, 2.74it/s]
1/1 [=====] - 0s 258ms/step
37%|          | 673/1796 [04:08<06:56, 2.70it/s]
1/1 [=====] - 0s 279ms/step

```

```

38%|          | 674/1796 [04:08<06:56, 2.69it/s]
1/1 [=====] - 0s 265ms/step
38%|          | 675/1796 [04:09<06:51, 2.72it/s]
1/1 [=====] - 0s 264ms/step
38%|          | 676/1796 [04:09<06:47, 2.75it/s]
1/1 [=====] - 0s 282ms/step
38%|          | 677/1796 [04:10<07:04, 2.64it/s]
1/1 [=====] - 0s 264ms/step
38%|          | 678/1796 [04:10<06:56, 2.69it/s]
1/1 [=====] - 0s 264ms/step
38%|          | 679/1796 [04:10<06:53, 2.70it/s]
1/1 [=====] - 0s 285ms/step
38%|          | 680/1796 [04:11<06:55, 2.68it/s]
1/1 [=====] - 0s 266ms/step
38%|          | 681/1796 [04:11<06:51, 2.71it/s]
1/1 [=====] - 0s 262ms/step
38%|          | 682/1796 [04:11<06:44, 2.75it/s]
1/1 [=====] - 0s 279ms/step
38%|          | 683/1796 [04:12<06:47, 2.73it/s]
1/1 [=====] - 0s 266ms/step
38%|          | 684/1796 [04:12<06:47, 2.73it/s]
1/1 [=====] - 0s 276ms/step
38%|          | 685/1796 [04:13<07:09, 2.59it/s]
1/1 [=====] - 0s 292ms/step
38%|          | 686/1796 [04:13<07:09, 2.59it/s]
1/1 [=====] - 0s 260ms/step
38%|          | 687/1796 [04:13<06:56, 2.66it/s]
1/1 [=====] - 0s 259ms/step
38%|          | 688/1796 [04:14<06:48, 2.71it/s]
1/1 [=====] - 0s 288ms/step
38%|          | 689/1796 [04:14<06:54, 2.67it/s]
1/1 [=====] - 0s 261ms/step

```

```

38%|          | 690/1796 [04:14<06:46, 2.72it/s]
1/1 [=====] - 0s 260ms/step
38%|          | 691/1796 [04:15<06:55, 2.66it/s]
1/1 [=====] - 0s 287ms/step
39%|          | 692/1796 [04:15<06:56, 2.65it/s]
1/1 [=====] - 0s 257ms/step
39%|          | 693/1796 [04:15<06:46, 2.71it/s]
1/1 [=====] - 0s 266ms/step
39%|          | 694/1796 [04:16<06:43, 2.73it/s]
1/1 [=====] - 0s 330ms/step
39%|          | 695/1796 [04:16<07:08, 2.57it/s]
1/1 [=====] - 0s 278ms/step
39%|          | 696/1796 [04:17<07:07, 2.57it/s]
1/1 [=====] - 0s 267ms/step
39%|          | 697/1796 [04:17<07:09, 2.56it/s]
1/1 [=====] - 0s 280ms/step
39%|          | 698/1796 [04:17<07:02, 2.60it/s]
1/1 [=====] - 0s 259ms/step
39%|          | 699/1796 [04:18<07:05, 2.58it/s]
1/1 [=====] - 0s 261ms/step
39%|          | 700/1796 [04:18<06:52, 2.65it/s]
1/1 [=====] - 0s 279ms/step
39%|          | 701/1796 [04:19<06:50, 2.67it/s]
1/1 [=====] - 0s 258ms/step
39%|          | 702/1796 [04:19<06:41, 2.72it/s]
1/1 [=====] - 0s 264ms/step
39%|          | 703/1796 [04:19<06:39, 2.74it/s]
1/1 [=====] - 0s 283ms/step
39%|          | 704/1796 [04:20<06:42, 2.72it/s]
1/1 [=====] - 0s 263ms/step
39%|          | 705/1796 [04:20<06:37, 2.74it/s]
1/1 [=====] - 0s 274ms/step

```



```

39%|          | 706/1796 [04:20<06:39, 2.73it/s]
1/1 [=====] - 0s 295ms/step
39%|          | 707/1796 [04:21<07:00, 2.59it/s]
1/1 [=====] - 0s 261ms/step
39%|          | 708/1796 [04:21<06:51, 2.64it/s]
1/1 [=====] - 0s 262ms/step
39%|          | 709/1796 [04:22<06:54, 2.62it/s]
1/1 [=====] - 0s 284ms/step
40%|          | 710/1796 [04:22<06:51, 2.64it/s]
1/1 [=====] - 0s 261ms/step
40%|          | 711/1796 [04:22<06:43, 2.69it/s]
1/1 [=====] - 0s 259ms/step
40%|          | 712/1796 [04:23<06:37, 2.73it/s]
1/1 [=====] - 0s 276ms/step
40%|          | 713/1796 [04:23<06:37, 2.73it/s]
1/1 [=====] - 0s 263ms/step
40%|          | 714/1796 [04:23<06:39, 2.71it/s]
1/1 [=====] - 0s 261ms/step
40%|          | 715/1796 [04:24<06:35, 2.74it/s]
1/1 [=====] - 0s 285ms/step
40%|          | 716/1796 [04:24<06:40, 2.70it/s]
1/1 [=====] - 0s 261ms/step
40%|          | 717/1796 [04:24<06:33, 2.75it/s]
1/1 [=====] - 0s 262ms/step
40%|          | 718/1796 [04:25<06:29, 2.77it/s]
1/1 [=====] - 0s 285ms/step
40%|          | 719/1796 [04:25<06:47, 2.64it/s]
1/1 [=====] - 0s 259ms/step
40%|          | 720/1796 [04:26<06:39, 2.69it/s]
1/1 [=====] - 0s 263ms/step
40%|          | 721/1796 [04:26<06:47, 2.64it/s]
1/1 [=====] - 0s 282ms/step

```

40%| | 722/1796 [04:26<06:46, 2.64it/s]
 1/1 [=====] - 0s 259ms/step
 40%| | 723/1796 [04:27<06:36, 2.70it/s]
 1/1 [=====] - 0s 262ms/step
 40%| | 724/1796 [04:27<06:31, 2.74it/s]
 1/1 [=====] - 0s 275ms/step
 40%| | 725/1796 [04:27<06:32, 2.73it/s]
 1/1 [=====] - 0s 261ms/step
 40%| | 726/1796 [04:28<06:44, 2.65it/s]
 1/1 [=====] - 0s 265ms/step
 40%| | 727/1796 [04:28<06:37, 2.69it/s]
 1/1 [=====] - 0s 281ms/step
 41%| | 728/1796 [04:29<06:37, 2.68it/s]
 1/1 [=====] - 0s 285ms/step
 41%| | 729/1796 [04:29<06:38, 2.68it/s]
 1/1 [=====] - 0s 264ms/step
 41%| | 730/1796 [04:29<06:33, 2.71it/s]
 1/1 [=====] - 0s 283ms/step
 41%| | 731/1796 [04:30<06:35, 2.69it/s]
 1/1 [=====] - 0s 263ms/step
 41%| | 732/1796 [04:30<06:44, 2.63it/s]
 1/1 [=====] - 0s 282ms/step
 41%| | 733/1796 [04:30<06:50, 2.59it/s]
 1/1 [=====] - 0s 287ms/step
 41%| | 734/1796 [04:31<06:53, 2.57it/s]
 1/1 [=====] - 0s 264ms/step
 41%| | 735/1796 [04:31<06:44, 2.62it/s]
 1/1 [=====] - 0s 262ms/step
 41%| | 736/1796 [04:32<06:36, 2.68it/s]
 1/1 [=====] - 0s 281ms/step
 41%| | 737/1796 [04:32<06:36, 2.67it/s]
 1/1 [=====] - 0s 264ms/step

```

41%|          | 738/1796 [04:32<06:32, 2.70it/s]
1/1 [=====] - 0s 261ms/step
41%|          | 739/1796 [04:33<06:48, 2.59it/s]
1/1 [=====] - 0s 293ms/step
41%|          | 740/1796 [04:33<06:49, 2.58it/s]
1/1 [=====] - 0s 260ms/step
41%|          | 741/1796 [04:33<06:36, 2.66it/s]
1/1 [=====] - 0s 260ms/step
41%|          | 742/1796 [04:34<06:28, 2.71it/s]
1/1 [=====] - 0s 282ms/step
41%|          | 743/1796 [04:34<06:30, 2.70it/s]
1/1 [=====] - 0s 261ms/step
41%|          | 744/1796 [04:35<06:24, 2.74it/s]
1/1 [=====] - 0s 261ms/step
41%|          | 745/1796 [04:35<06:30, 2.69it/s]
1/1 [=====] - 0s 296ms/step
42%|          | 746/1796 [04:35<06:45, 2.59it/s]
1/1 [=====] - 0s 261ms/step
42%|          | 747/1796 [04:36<06:35, 2.65it/s]
1/1 [=====] - 0s 263ms/step
42%|          | 748/1796 [04:36<06:27, 2.70it/s]
1/1 [=====] - 0s 289ms/step
42%|          | 749/1796 [04:36<06:32, 2.67it/s]
1/1 [=====] - 0s 258ms/step
42%|          | 750/1796 [04:37<06:25, 2.71it/s]
1/1 [=====] - 0s 267ms/step
42%|          | 751/1796 [04:37<06:25, 2.71it/s]
1/1 [=====] - 0s 287ms/step
42%|          | 752/1796 [04:38<06:27, 2.69it/s]
1/1 [=====] - 0s 261ms/step
42%|          | 753/1796 [04:38<06:36, 2.63it/s]
1/1 [=====] - 0s 261ms/step

```

```

42%|          | 754/1796 [04:38<06:27, 2.69it/s]
1/1 [=====] - 0s 282ms/step
42%|          | 755/1796 [04:39<06:28, 2.68it/s]
1/1 [=====] - 0s 267ms/step
42%|          | 756/1796 [04:39<06:27, 2.69it/s]
1/1 [=====] - 0s 282ms/step
42%|          | 757/1796 [04:39<06:37, 2.61it/s]
1/1 [=====] - 0s 285ms/step
42%|          | 758/1796 [04:40<06:35, 2.63it/s]
1/1 [=====] - 0s 261ms/step
42%|          | 759/1796 [04:40<06:26, 2.68it/s]
1/1 [=====] - 0s 266ms/step
42%|          | 760/1796 [04:41<06:37, 2.61it/s]
1/1 [=====] - 0s 287ms/step
42%|          | 761/1796 [04:41<06:39, 2.59it/s]
1/1 [=====] - 0s 264ms/step
42%|          | 762/1796 [04:41<06:29, 2.66it/s]
1/1 [=====] - 0s 262ms/step
42%|          | 763/1796 [04:42<06:29, 2.65it/s]
1/1 [=====] - 0s 289ms/step
43%|          | 764/1796 [04:42<06:30, 2.64it/s]
1/1 [=====] - 0s 263ms/step
43%|          | 765/1796 [04:42<06:22, 2.70it/s]
1/1 [=====] - 0s 260ms/step
43%|          | 766/1796 [04:43<06:17, 2.73it/s]
1/1 [=====] - 0s 277ms/step
43%|          | 767/1796 [04:43<06:30, 2.64it/s]
1/1 [=====] - 0s 259ms/step
43%|          | 768/1796 [04:44<06:23, 2.68it/s]
1/1 [=====] - 0s 269ms/step
43%|          | 769/1796 [04:44<06:38, 2.58it/s]
1/1 [=====] - 0s 280ms/step

```

```

43%|          | 770/1796 [04:44<06:34, 2.60it/s]
1/1 [=====] - 0s 262ms/step
43%|          | 771/1796 [04:45<06:25, 2.66it/s]
1/1 [=====] - 0s 274ms/step
43%|          | 772/1796 [04:45<06:23, 2.67it/s]
1/1 [=====] - 0s 290ms/step
43%|          | 773/1796 [04:46<06:25, 2.65it/s]
1/1 [=====] - 0s 265ms/step
43%|          | 774/1796 [04:46<06:34, 2.59it/s]
1/1 [=====] - 0s 264ms/step
43%|          | 775/1796 [04:46<06:27, 2.64it/s]
1/1 [=====] - 0s 281ms/step
43%|          | 776/1796 [04:47<06:24, 2.65it/s]
1/1 [=====] - 0s 281ms/step
43%|          | 777/1796 [04:47<06:24, 2.65it/s]
1/1 [=====] - 0s 261ms/step
43%|          | 778/1796 [04:47<06:17, 2.70it/s]
1/1 [=====] - 0s 285ms/step
43%|          | 779/1796 [04:48<06:19, 2.68it/s]
1/1 [=====] - 0s 263ms/step
43%|          | 780/1796 [04:48<06:14, 2.71it/s]
1/1 [=====] - 0s 264ms/step
43%|          | 781/1796 [04:49<06:36, 2.56it/s]
1/1 [=====] - 0s 285ms/step
44%|          | 782/1796 [04:49<06:38, 2.54it/s]
1/1 [=====] - 0s 260ms/step
44%|          | 783/1796 [04:49<06:24, 2.63it/s]
1/1 [=====] - 0s 259ms/step
44%|          | 784/1796 [04:50<06:15, 2.69it/s]
1/1 [=====] - 0s 290ms/step
44%|          | 785/1796 [04:50<06:20, 2.66it/s]
1/1 [=====] - 0s 257ms/step

```

```

44%|          | 786/1796 [04:50<06:11, 2.72it/s]
1/1 [=====] - 0s 259ms/step
44%|          | 787/1796 [04:51<06:07, 2.75it/s]
1/1 [=====] - 0s 286ms/step
44%|          | 788/1796 [04:51<06:32, 2.57it/s]
1/1 [=====] - 0s 258ms/step
44%|          | 789/1796 [04:52<06:20, 2.64it/s]
1/1 [=====] - 0s 261ms/step
44%|          | 790/1796 [04:52<06:13, 2.69it/s]
1/1 [=====] - 0s 289ms/step
44%|          | 791/1796 [04:52<06:22, 2.63it/s]
1/1 [=====] - 0s 259ms/step
44%|          | 792/1796 [04:53<06:13, 2.68it/s]
1/1 [=====] - 0s 260ms/step
44%|          | 793/1796 [04:53<06:16, 2.66it/s]
1/1 [=====] - 0s 291ms/step
44%|          | 794/1796 [04:53<06:30, 2.57it/s]
1/1 [=====] - 0s 264ms/step
44%|          | 795/1796 [04:54<06:21, 2.62it/s]
1/1 [=====] - 0s 259ms/step
44%|          | 796/1796 [04:54<06:13, 2.67it/s]
1/1 [=====] - 0s 284ms/step
44%|          | 797/1796 [04:55<06:15, 2.66it/s]
1/1 [=====] - 0s 258ms/step
44%|          | 798/1796 [04:55<06:09, 2.70it/s]
1/1 [=====] - 0s 259ms/step
44%|          | 799/1796 [04:55<06:04, 2.73it/s]
1/1 [=====] - 0s 296ms/step
45%|          | 800/1796 [04:56<06:13, 2.66it/s]
1/1 [=====] - 0s 293ms/step
45%|          | 801/1796 [04:56<06:30, 2.55it/s]
1/1 [=====] - 0s 259ms/step

```

```

45%|          | 802/1796 [04:56<06:18, 2.62it/s]
1/1 [=====] - 0s 281ms/step
45%|          | 803/1796 [04:57<06:19, 2.61it/s]
1/1 [=====] - 0s 259ms/step
45%|          | 804/1796 [04:57<06:10, 2.67it/s]
1/1 [=====] - 0s 260ms/step
45%|          | 805/1796 [04:58<06:27, 2.56it/s]
1/1 [=====] - 0s 292ms/step
45%|          | 806/1796 [04:58<06:25, 2.57it/s]
1/1 [=====] - 0s 258ms/step
45%|          | 807/1796 [04:58<06:14, 2.64it/s]
1/1 [=====] - 0s 261ms/step
45%|          | 808/1796 [04:59<06:08, 2.68it/s]
1/1 [=====] - 0s 291ms/step
45%|          | 809/1796 [04:59<06:11, 2.66it/s]
1/1 [=====] - 0s 263ms/step
45%|          | 810/1796 [04:59<06:05, 2.70it/s]
1/1 [=====] - 0s 258ms/step
45%|          | 811/1796 [05:00<05:59, 2.74it/s]
1/1 [=====] - 0s 282ms/step
45%|          | 812/1796 [05:00<06:17, 2.61it/s]
1/1 [=====] - 0s 274ms/step
45%|          | 813/1796 [05:01<06:15, 2.62it/s]
1/1 [=====] - 0s 267ms/step
45%|          | 814/1796 [05:01<06:10, 2.65it/s]
1/1 [=====] - 0s 290ms/step
45%|          | 815/1796 [05:01<06:14, 2.62it/s]
1/1 [=====] - 0s 259ms/step
45%|          | 816/1796 [05:02<06:09, 2.65it/s]
1/1 [=====] - 0s 263ms/step
45%|          | 817/1796 [05:02<06:11, 2.64it/s]
1/1 [=====] - 0s 282ms/step

```

```

46%|          | 818/1796 [05:03<06:23, 2.55it/s]
1/1 [=====] - 0s 262ms/step
46%|          | 819/1796 [05:03<06:15, 2.60it/s]
1/1 [=====] - 0s 259ms/step
46%|          | 820/1796 [05:03<06:05, 2.67it/s]
1/1 [=====] - 0s 280ms/step
46%|          | 821/1796 [05:04<06:04, 2.67it/s]
1/1 [=====] - 0s 264ms/step
46%|          | 822/1796 [05:04<06:00, 2.70it/s]
1/1 [=====] - 0s 262ms/step
46%|          | 823/1796 [05:04<05:56, 2.73it/s]
1/1 [=====] - 0s 279ms/step
46%|          | 824/1796 [05:05<05:57, 2.72it/s]
1/1 [=====] - 0s 264ms/step
46%|          | 825/1796 [05:05<05:55, 2.73it/s]
1/1 [=====] - 0s 264ms/step
46%|          | 826/1796 [05:05<06:00, 2.69it/s]
1/1 [=====] - 0s 291ms/step
46%|          | 827/1796 [05:06<06:04, 2.66it/s]
1/1 [=====] - 0s 273ms/step
46%|          | 828/1796 [05:06<06:01, 2.68it/s]
1/1 [=====] - 0s 259ms/step
46%|          | 829/1796 [05:07<06:03, 2.66it/s]
1/1 [=====] - 0s 282ms/step
46%|          | 830/1796 [05:07<06:14, 2.58it/s]
1/1 [=====] - 0s 261ms/step
46%|          | 831/1796 [05:07<06:05, 2.64it/s]
1/1 [=====] - 0s 260ms/step
46%|          | 832/1796 [05:08<05:58, 2.69it/s]
1/1 [=====] - 0s 287ms/step
46%|          | 833/1796 [05:08<06:00, 2.67it/s]
1/1 [=====] - 0s 260ms/step

```



```

46%|          | 834/1796 [05:08<05:55, 2.70it/s]
1/1 [=====] - 0s 262ms/step
46%|          | 835/1796 [05:09<05:51, 2.73it/s]
1/1 [=====] - 0s 284ms/step
47%|          | 836/1796 [05:09<06:08, 2.61it/s]
1/1 [=====] - 0s 276ms/step
47%|          | 837/1796 [05:10<06:04, 2.63it/s]
1/1 [=====] - 0s 267ms/step
47%|          | 838/1796 [05:10<05:59, 2.67it/s]
1/1 [=====] - 0s 286ms/step
47%|          | 839/1796 [05:10<06:02, 2.64it/s]
1/1 [=====] - 0s 260ms/step
47%|          | 840/1796 [05:11<05:55, 2.69it/s]
1/1 [=====] - 0s 289ms/step
47%|          | 841/1796 [05:11<06:14, 2.55it/s]
1/1 [=====] - 0s 290ms/step
47%|          | 842/1796 [05:12<06:36, 2.41it/s]
1/1 [=====] - 0s 293ms/step
47%|          | 843/1796 [05:12<06:35, 2.41it/s]
1/1 [=====] - 0s 263ms/step
47%|          | 844/1796 [05:12<06:19, 2.51it/s]
1/1 [=====] - 0s 282ms/step
47%|          | 845/1796 [05:13<06:12, 2.55it/s]
1/1 [=====] - 0s 267ms/step
47%|          | 846/1796 [05:13<06:03, 2.61it/s]
1/1 [=====] - 0s 262ms/step
47%|          | 847/1796 [05:14<05:55, 2.67it/s]
1/1 [=====] - 0s 288ms/step
47%|          | 848/1796 [05:14<06:13, 2.54it/s]
1/1 [=====] - 0s 266ms/step
47%|          | 849/1796 [05:14<06:02, 2.61it/s]
1/1 [=====] - 0s 273ms/step

```

```

47%|          | 850/1796 [05:15<06:01, 2.62it/s]
1/1 [=====] - 0s 280ms/step
47%|          | 851/1796 [05:15<05:59, 2.63it/s]
1/1 [=====] - 0s 262ms/step
47%|          | 852/1796 [05:15<05:51, 2.69it/s]
1/1 [=====] - 0s 265ms/step
47%|          | 853/1796 [05:16<06:08, 2.56it/s]
1/1 [=====] - 0s 273ms/step
48%|          | 854/1796 [05:16<06:05, 2.58it/s]
1/1 [=====] - 0s 262ms/step
48%|          | 855/1796 [05:17<05:57, 2.63it/s]
1/1 [=====] - 0s 267ms/step
48%|          | 856/1796 [05:17<05:51, 2.67it/s]
1/1 [=====] - 0s 310ms/step
48%|          | 857/1796 [05:17<06:03, 2.59it/s]
1/1 [=====] - 0s 307ms/step
48%|          | 858/1796 [05:18<06:09, 2.54it/s]
1/1 [=====] - 0s 276ms/step
48%|          | 859/1796 [05:18<06:21, 2.46it/s]
1/1 [=====] - 0s 273ms/step
48%|          | 860/1796 [05:19<06:08, 2.54it/s]
1/1 [=====] - 0s 268ms/step
48%|          | 861/1796 [05:19<06:04, 2.57it/s]
1/1 [=====] - 0s 280ms/step
48%|          | 862/1796 [05:19<06:00, 2.59it/s]
1/1 [=====] - 0s 268ms/step
48%|          | 863/1796 [05:20<05:53, 2.64it/s]
1/1 [=====] - 0s 265ms/step
48%|          | 864/1796 [05:20<06:01, 2.58it/s]
1/1 [=====] - 0s 272ms/step
48%|          | 865/1796 [05:21<06:02, 2.57it/s]
1/1 [=====] - 0s 276ms/step

```

```

48%|          | 866/1796 [05:21<05:57, 2.60it/s]
1/1 [=====] - 0s 264ms/step
48%|          | 867/1796 [05:21<05:50, 2.65it/s]
1/1 [=====] - 0s 284ms/step
48%|          | 868/1796 [05:22<05:51, 2.64it/s]
1/1 [=====] - 0s 279ms/step
48%|          | 869/1796 [05:22<05:50, 2.65it/s]
1/1 [=====] - 0s 262ms/step
48%|          | 870/1796 [05:22<05:55, 2.61it/s]
1/1 [=====] - 0s 277ms/step
48%|          | 871/1796 [05:23<05:51, 2.63it/s]
1/1 [=====] - 0s 282ms/step
49%|          | 872/1796 [05:23<05:50, 2.64it/s]
1/1 [=====] - 0s 260ms/step
49%|          | 873/1796 [05:24<05:41, 2.70it/s]
1/1 [=====] - 0s 273ms/step
49%|          | 874/1796 [05:24<05:40, 2.71it/s]
1/1 [=====] - 0s 280ms/step
49%|          | 875/1796 [05:24<05:57, 2.58it/s]
1/1 [=====] - 0s 260ms/step
49%|          | 876/1796 [05:25<05:49, 2.63it/s]
1/1 [=====] - 0s 285ms/step
49%|          | 877/1796 [05:25<05:58, 2.57it/s]
1/1 [=====] - 0s 274ms/step
49%|          | 878/1796 [05:25<05:50, 2.62it/s]
1/1 [=====] - 0s 263ms/step
49%|          | 879/1796 [05:26<05:43, 2.67it/s]
1/1 [=====] - 0s 277ms/step
49%|          | 880/1796 [05:26<05:44, 2.66it/s]
1/1 [=====] - 0s 280ms/step
49%|          | 881/1796 [05:27<05:45, 2.65it/s]
1/1 [=====] - 0s 266ms/step

```

```

49%|          | 882/1796 [05:27<05:50, 2.61it/s]
1/1 [=====] - 0s 265ms/step
49%|          | 883/1796 [05:27<05:45, 2.65it/s]
1/1 [=====] - 0s 279ms/step
49%|          | 884/1796 [05:28<05:43, 2.66it/s]
1/1 [=====] - 0s 262ms/step
49%|          | 885/1796 [05:28<05:39, 2.68it/s]
1/1 [=====] - 0s 260ms/step
49%|          | 886/1796 [05:28<05:34, 2.72it/s]
1/1 [=====] - 0s 277ms/step
49%|          | 887/1796 [05:29<05:36, 2.70it/s]
1/1 [=====] - 0s 274ms/step
49%|          | 888/1796 [05:29<05:36, 2.70it/s]
1/1 [=====] - 0s 282ms/step
49%|          | 889/1796 [05:30<06:03, 2.50it/s]
1/1 [=====] - 0s 269ms/step
50%|          | 890/1796 [05:30<05:53, 2.56it/s]
1/1 [=====] - 0s 281ms/step
50%|          | 891/1796 [05:30<05:48, 2.60it/s]
1/1 [=====] - 0s 261ms/step
50%|          | 892/1796 [05:31<05:56, 2.54it/s]
1/1 [=====] - 0s 265ms/step
50%|          | 893/1796 [05:31<05:47, 2.60it/s]
1/1 [=====] - 0s 275ms/step
50%|          | 894/1796 [05:32<05:41, 2.64it/s]
1/1 [=====] - 0s 276ms/step
50%|          | 895/1796 [05:32<05:39, 2.65it/s]
1/1 [=====] - 0s 265ms/step
50%|          | 896/1796 [05:32<05:40, 2.65it/s]
1/1 [=====] - 0s 275ms/step
50%|          | 897/1796 [05:33<05:39, 2.65it/s]
1/1 [=====] - 0s 268ms/step

```

50%| | 898/1796 [05:33<05:34, 2.68it/s]
 1/1 [=====] - 0s 261ms/step
 50%| | 899/1796 [05:33<05:43, 2.61it/s]
 1/1 [=====] - 0s 274ms/step
 50%| | 900/1796 [05:34<05:39, 2.64it/s]
 1/1 [=====] - 0s 279ms/step
 50%| | 901/1796 [05:34<05:44, 2.60it/s]
 1/1 [=====] - 0s 274ms/step
 50%| | 902/1796 [05:35<05:45, 2.59it/s]
 1/1 [=====] - 0s 290ms/step
 50%| | 903/1796 [05:35<05:45, 2.58it/s]
 1/1 [=====] - 0s 279ms/step
 50%| | 904/1796 [05:35<05:43, 2.60it/s]
 1/1 [=====] - 0s 271ms/step
 50%| | 905/1796 [05:36<05:38, 2.63it/s]
 1/1 [=====] - 0s 272ms/step
 50%| | 906/1796 [05:36<05:48, 2.55it/s]
 1/1 [=====] - 0s 279ms/step
 51%| | 907/1796 [05:37<05:44, 2.58it/s]
 1/1 [=====] - 0s 278ms/step
 51%| | 908/1796 [05:37<05:45, 2.57it/s]
 1/1 [=====] - 0s 282ms/step
 51%| | 909/1796 [05:37<05:43, 2.58it/s]
 1/1 [=====] - 0s 274ms/step
 51%| | 910/1796 [05:38<05:39, 2.61it/s]
 1/1 [=====] - 0s 266ms/step
 51%| | 911/1796 [05:38<05:33, 2.65it/s]
 1/1 [=====] - 0s 263ms/step
 51%| | 912/1796 [05:38<05:40, 2.60it/s]
 1/1 [=====] - 0s 272ms/step
 51%| | 913/1796 [05:39<05:44, 2.56it/s]
 1/1 [=====] - 0s 281ms/step

```

51%|          | 914/1796 [05:39<05:41, 2.58it/s]
1/1 [=====] - 0s 260ms/step
51%|          | 915/1796 [05:40<05:31, 2.66it/s]
1/1 [=====] - 0s 274ms/step
51%|          | 916/1796 [05:40<05:30, 2.66it/s]
1/1 [=====] - 0s 275ms/step
51%|          | 917/1796 [05:40<05:29, 2.67it/s]
1/1 [=====] - 0s 263ms/step
51%|          | 918/1796 [05:41<05:24, 2.71it/s]
1/1 [=====] - 0s 289ms/step
51%|          | 919/1796 [05:41<05:28, 2.67it/s]
1/1 [=====] - 0s 280ms/step
51%|          | 920/1796 [05:41<05:32, 2.64it/s]
1/1 [=====] - 0s 273ms/step
51%|          | 921/1796 [05:42<05:33, 2.62it/s]
1/1 [=====] - 0s 323ms/step
51%|          | 922/1796 [05:42<06:08, 2.37it/s]
1/1 [=====] - 0s 262ms/step
51%|          | 923/1796 [05:43<05:55, 2.45it/s]
1/1 [=====] - 0s 269ms/step
51%|          | 924/1796 [05:43<05:45, 2.52it/s]
1/1 [=====] - 0s 259ms/step
52%|          | 925/1796 [05:43<05:40, 2.56it/s]
1/1 [=====] - 0s 262ms/step
52%|          | 926/1796 [05:44<05:34, 2.60it/s]
1/1 [=====] - 0s 346ms/step
52%|          | 927/1796 [05:44<06:08, 2.36it/s]
1/1 [=====] - 0s 317ms/step
52%|          | 928/1796 [05:45<06:19, 2.29it/s]
1/1 [=====] - 0s 313ms/step
52%|          | 929/1796 [05:45<06:24, 2.25it/s]
1/1 [=====] - 0s 288ms/step

```

```

52%|          | 930/1796 [05:46<06:22, 2.27it/s]
1/1 [=====] - 0s 327ms/step
52%|          | 931/1796 [05:46<06:33, 2.20it/s]
1/1 [=====] - 0s 366ms/step
52%|          | 932/1796 [05:47<06:48, 2.11it/s]
1/1 [=====] - 0s 298ms/step
52%|          | 933/1796 [05:47<06:42, 2.14it/s]
1/1 [=====] - 0s 272ms/step
52%|          | 934/1796 [05:48<06:24, 2.24it/s]
1/1 [=====] - 0s 271ms/step
52%|          | 935/1796 [05:48<06:03, 2.37it/s]
1/1 [=====] - 0s 263ms/step
52%|          | 936/1796 [05:48<05:48, 2.47it/s]
1/1 [=====] - 0s 273ms/step
52%|          | 937/1796 [05:49<05:44, 2.49it/s]
1/1 [=====] - 0s 278ms/step
52%|          | 938/1796 [05:49<05:35, 2.56it/s]
1/1 [=====] - 0s 262ms/step
52%|          | 939/1796 [05:49<05:26, 2.63it/s]
1/1 [=====] - 0s 267ms/step
52%|          | 940/1796 [05:50<05:20, 2.67it/s]
1/1 [=====] - 0s 289ms/step
52%|          | 941/1796 [05:50<05:26, 2.62it/s]
1/1 [=====] - 0s 260ms/step
52%|          | 942/1796 [05:51<05:31, 2.58it/s]
1/1 [=====] - 0s 279ms/step
53%|          | 943/1796 [05:51<05:26, 2.61it/s]
1/1 [=====] - 0s 275ms/step
53%|          | 944/1796 [05:51<05:22, 2.64it/s]
1/1 [=====] - 0s 263ms/step
53%|          | 945/1796 [05:52<05:16, 2.68it/s]
1/1 [=====] - 0s 279ms/step

```

53%| | 946/1796 [05:52<05:18, 2.67it/s]
 1/1 [=====] - 0s 281ms/step
 53%| | 947/1796 [05:52<05:18, 2.67it/s]
 1/1 [=====] - 0s 258ms/step
 53%| | 948/1796 [05:53<05:14, 2.70it/s]
 1/1 [=====] - 0s 280ms/step
 53%| | 949/1796 [05:53<05:23, 2.62it/s]
 1/1 [=====] - 0s 277ms/step
 53%| | 950/1796 [05:54<05:21, 2.63it/s]
 1/1 [=====] - 0s 259ms/step
 53%| | 951/1796 [05:54<05:16, 2.67it/s]
 1/1 [=====] - 0s 276ms/step
 53%| | 952/1796 [05:54<05:27, 2.57it/s]
 1/1 [=====] - 0s 274ms/step
 53%| | 953/1796 [05:55<05:23, 2.61it/s]
 1/1 [=====] - 0s 273ms/step
 53%| | 954/1796 [05:55<05:22, 2.61it/s]
 1/1 [=====] - 0s 280ms/step
 53%| | 955/1796 [05:55<05:21, 2.62it/s]
 1/1 [=====] - 0s 278ms/step
 53%| | 956/1796 [05:56<05:17, 2.64it/s]
 1/1 [=====] - 0s 261ms/step
 53%| | 957/1796 [05:56<05:12, 2.69it/s]
 1/1 [=====] - 0s 275ms/step
 53%| | 958/1796 [05:57<05:11, 2.69it/s]
 1/1 [=====] - 0s 280ms/step
 53%| | 959/1796 [05:57<05:12, 2.68it/s]
 1/1 [=====] - 0s 288ms/step
 53%| | 960/1796 [05:57<05:26, 2.56it/s]
 1/1 [=====] - 0s 297ms/step
 54%| | 961/1796 [05:58<05:40, 2.45it/s]
 1/1 [=====] - 0s 278ms/step

54%| | 962/1796 [05:58<05:35, 2.48it/s]
 1/1 [=====] - 0s 268ms/step
 54%| | 963/1796 [05:59<05:30, 2.52it/s]
 1/1 [=====] - 0s 275ms/step
 54%| | 964/1796 [05:59<05:28, 2.53it/s]
 1/1 [=====] - 0s 271ms/step
 54%| | 965/1796 [05:59<05:34, 2.48it/s]
 1/1 [=====] - 0s 271ms/step
 54%| | 966/1796 [06:00<05:26, 2.54it/s]
 1/1 [=====] - 0s 288ms/step
 54%| | 967/1796 [06:00<05:28, 2.52it/s]
 1/1 [=====] - 0s 286ms/step
 54%| | 968/1796 [06:01<05:30, 2.50it/s]
 1/1 [=====] - 0s 284ms/step
 54%| | 969/1796 [06:01<05:29, 2.51it/s]
 1/1 [=====] - 0s 335ms/step
 54%| | 970/1796 [06:01<05:47, 2.38it/s]
 1/1 [=====] - 0s 294ms/step
 54%| | 971/1796 [06:02<05:52, 2.34it/s]
 1/1 [=====] - 0s 296ms/step
 54%| | 972/1796 [06:02<05:58, 2.30it/s]
 1/1 [=====] - 0s 317ms/step
 54%| | 973/1796 [06:03<06:15, 2.19it/s]
 1/1 [=====] - 0s 315ms/step
 54%| | 974/1796 [06:03<06:15, 2.19it/s]
 1/1 [=====] - 0s 295ms/step
 54%| | 975/1796 [06:04<06:27, 2.12it/s]
 1/1 [=====] - 0s 321ms/step
 54%| | 976/1796 [06:04<06:25, 2.12it/s]
 1/1 [=====] - 0s 303ms/step
 54%| | 977/1796 [06:05<06:20, 2.15it/s]
 1/1 [=====] - 0s 311ms/step

54%| | 978/1796 [06:05<06:18, 2.16it/s]
 1/1 [=====] - 0s 297ms/step
 55%| | 979/1796 [06:06<06:13, 2.19it/s]
 1/1 [=====] - 0s 312ms/step
 55%| | 980/1796 [06:06<06:13, 2.19it/s]
 1/1 [=====] - 0s 305ms/step
 55%| | 981/1796 [06:07<06:11, 2.19it/s]
 1/1 [=====] - 0s 290ms/step
 55%| | 982/1796 [06:07<05:59, 2.26it/s]
 1/1 [=====] - 0s 279ms/step
 55%| | 983/1796 [06:07<05:45, 2.36it/s]
 1/1 [=====] - 0s 285ms/step
 55%| | 984/1796 [06:08<05:50, 2.32it/s]
 1/1 [=====] - 0s 266ms/step
 55%| | 985/1796 [06:08<05:43, 2.36it/s]
 1/1 [=====] - 0s 262ms/step
 55%| | 986/1796 [06:09<05:27, 2.47it/s]
 1/1 [=====] - 0s 276ms/step
 55%| | 987/1796 [06:09<05:20, 2.53it/s]
 1/1 [=====] - 0s 287ms/step
 55%| | 988/1796 [06:09<05:23, 2.50it/s]
 1/1 [=====] - 0s 330ms/step
 55%| | 989/1796 [06:10<05:34, 2.41it/s]
 1/1 [=====] - 0s 301ms/step
 55%| | 990/1796 [06:10<05:37, 2.39it/s]
 1/1 [=====] - 0s 284ms/step
 55%| | 991/1796 [06:11<05:27, 2.46it/s]
 1/1 [=====] - 0s 290ms/step
 55%| | 992/1796 [06:11<05:31, 2.42it/s]
 1/1 [=====] - 0s 289ms/step
 55%| | 993/1796 [06:11<05:30, 2.43it/s]
 1/1 [=====] - 0s 311ms/step

55%| | 994/1796 [06:12<05:48, 2.30it/s]
 1/1 [=====] - 0s 292ms/step
 55%| | 995/1796 [06:12<05:43, 2.33it/s]
 1/1 [=====] - 0s 281ms/step
 55%| | 996/1796 [06:13<05:38, 2.36it/s]
 1/1 [=====] - 0s 323ms/step
 56%| | 997/1796 [06:13<05:50, 2.28it/s]
 1/1 [=====] - 0s 302ms/step
 56%| | 998/1796 [06:14<05:42, 2.33it/s]
 1/1 [=====] - 0s 309ms/step
 56%| | 999/1796 [06:14<05:48, 2.29it/s]
 1/1 [=====] - 0s 320ms/step
 56%| | 1000/1796 [06:15<05:45, 2.30it/s]
 1/1 [=====] - 0s 309ms/step
 56%| | 1001/1796 [06:15<05:44, 2.31it/s]
 1/1 [=====] - 0s 302ms/step
 56%| | 1002/1796 [06:15<05:39, 2.34it/s]
 1/1 [=====] - 0s 317ms/step
 56%| | 1003/1796 [06:16<05:39, 2.34it/s]
 1/1 [=====] - 0s 331ms/step
 56%| | 1004/1796 [06:16<06:02, 2.19it/s]
 1/1 [=====] - 0s 333ms/step
 56%| | 1005/1796 [06:17<06:06, 2.16it/s]
 1/1 [=====] - 0s 327ms/step
 56%| | 1006/1796 [06:17<06:09, 2.14it/s]
 1/1 [=====] - 0s 332ms/step
 56%| | 1007/1796 [06:18<06:10, 2.13it/s]
 1/1 [=====] - 0s 336ms/step
 56%| | 1008/1796 [06:18<06:15, 2.10it/s]
 1/1 [=====] - 0s 350ms/step
 56%| | 1009/1796 [06:19<06:36, 1.99it/s]
 1/1 [=====] - 0s 318ms/step

56%| | 1010/1796 [06:19<06:33, 2.00it/s]
 1/1 [=====] - 0s 304ms/step
 56%| | 1011/1796 [06:20<06:11, 2.12it/s]
 1/1 [=====] - 0s 313ms/step
 56%| | 1012/1796 [06:20<05:56, 2.20it/s]
 1/1 [=====] - 0s 294ms/step
 56%| | 1013/1796 [06:21<05:42, 2.28it/s]
 1/1 [=====] - 0s 299ms/step
 56%| | 1014/1796 [06:21<05:35, 2.33it/s]
 1/1 [=====] - 0s 308ms/step
 57%| | 1015/1796 [06:21<05:34, 2.34it/s]
 1/1 [=====] - 0s 288ms/step
 57%| | 1016/1796 [06:22<05:26, 2.39it/s]
 1/1 [=====] - 0s 312ms/step
 57%| | 1017/1796 [06:22<05:32, 2.34it/s]
 1/1 [=====] - 0s 288ms/step
 57%| | 1018/1796 [06:23<05:49, 2.22it/s]
 1/1 [=====] - 0s 271ms/step
 57%| | 1019/1796 [06:23<05:33, 2.33it/s]
 1/1 [=====] - 0s 283ms/step
 57%| | 1020/1796 [06:23<05:22, 2.41it/s]
 1/1 [=====] - 0s 266ms/step
 57%| | 1021/1796 [06:24<05:15, 2.45it/s]
 1/1 [=====] - 0s 262ms/step
 57%| | 1022/1796 [06:24<05:06, 2.53it/s]
 1/1 [=====] - 0s 302ms/step
 57%| | 1023/1796 [06:25<05:23, 2.39it/s]
 1/1 [=====] - 0s 379ms/step
 57%| | 1024/1796 [06:25<05:52, 2.19it/s]
 1/1 [=====] - 0s 368ms/step
 57%| | 1025/1796 [06:26<06:08, 2.09it/s]
 1/1 [=====] - 0s 397ms/step

57%| | 1026/1796 [06:26<06:24, 2.00it/s]
 1/1 [=====] - 0s 349ms/step
 57%| | 1027/1796 [06:27<06:25, 1.99it/s]
 1/1 [=====] - 0s 346ms/step
 57%| | 1028/1796 [06:27<06:27, 1.98it/s]
 1/1 [=====] - 0s 324ms/step
 57%| | 1029/1796 [06:28<06:20, 2.02it/s]
 1/1 [=====] - 0s 323ms/step
 57%| | 1030/1796 [06:28<06:18, 2.03it/s]
 1/1 [=====] - 0s 320ms/step
 57%| | 1031/1796 [06:29<06:13, 2.05it/s]
 1/1 [=====] - 0s 312ms/step
 57%| | 1032/1796 [06:29<06:03, 2.10it/s]
 1/1 [=====] - 0s 296ms/step
 58%| | 1033/1796 [06:30<06:08, 2.07it/s]
 1/1 [=====] - 0s 283ms/step
 58%| | 1034/1796 [06:30<05:43, 2.22it/s]
 1/1 [=====] - 0s 265ms/step
 58%| | 1035/1796 [06:30<05:24, 2.34it/s]
 1/1 [=====] - 0s 263ms/step
 58%| | 1036/1796 [06:31<05:09, 2.45it/s]
 1/1 [=====] - 0s 310ms/step
 58%| | 1037/1796 [06:31<05:11, 2.44it/s]
 1/1 [=====] - 0s 284ms/step
 58%| | 1038/1796 [06:32<05:19, 2.37it/s]
 1/1 [=====] - 0s 299ms/step
 58%| | 1039/1796 [06:32<05:23, 2.34it/s]
 1/1 [=====] - 0s 302ms/step
 58%| | 1040/1796 [06:33<05:28, 2.30it/s]
 1/1 [=====] - 0s 298ms/step
 58%| | 1041/1796 [06:33<05:30, 2.28it/s]
 1/1 [=====] - 0s 300ms/step

```

58%|          | 1042/1796 [06:33<05:31, 2.28it/s]
1/1 [=====] - 0s 282ms/step
58%|          | 1043/1796 [06:34<05:28, 2.29it/s]
1/1 [=====] - 0s 264ms/step
58%|          | 1044/1796 [06:34<05:18, 2.36it/s]
1/1 [=====] - 0s 284ms/step
58%|          | 1045/1796 [06:35<05:16, 2.37it/s]
1/1 [=====] - 0s 283ms/step
58%|          | 1046/1796 [06:35<05:06, 2.45it/s]
1/1 [=====] - 0s 261ms/step
58%|          | 1047/1796 [06:36<05:07, 2.44it/s]
1/1 [=====] - 0s 286ms/step
58%|          | 1048/1796 [06:36<05:01, 2.48it/s]
1/1 [=====] - 0s 270ms/step
58%|          | 1049/1796 [06:36<04:52, 2.55it/s]
1/1 [=====] - 0s 265ms/step
58%|          | 1050/1796 [06:37<04:52, 2.55it/s]
1/1 [=====] - 0s 297ms/step
59%|          | 1051/1796 [06:37<04:54, 2.53it/s]
1/1 [=====] - 0s 269ms/step
59%|          | 1052/1796 [06:37<04:49, 2.57it/s]
1/1 [=====] - 0s 280ms/step
59%|          | 1053/1796 [06:38<04:48, 2.57it/s]
1/1 [=====] - 0s 284ms/step
59%|          | 1054/1796 [06:38<04:48, 2.57it/s]
1/1 [=====] - 0s 275ms/step
59%|          | 1055/1796 [06:39<04:45, 2.59it/s]
1/1 [=====] - 0s 302ms/step
59%|          | 1056/1796 [06:39<05:00, 2.46it/s]
1/1 [=====] - 0s 303ms/step
59%|          | 1057/1796 [06:40<05:20, 2.31it/s]
1/1 [=====] - 0s 291ms/step

```

```

59%|          | 1058/1796 [06:40<05:20, 2.30it/s]
1/1 [=====] - 0s 340ms/step
59%|          | 1059/1796 [06:40<05:30, 2.23it/s]
1/1 [=====] - 0s 300ms/step
59%|          | 1060/1796 [06:41<05:29, 2.23it/s]
1/1 [=====] - 0s 309ms/step
59%|          | 1061/1796 [06:41<05:30, 2.23it/s]
1/1 [=====] - 0s 306ms/step
59%|          | 1062/1796 [06:42<05:31, 2.22it/s]
1/1 [=====] - 0s 282ms/step
59%|          | 1063/1796 [06:42<05:17, 2.31it/s]
1/1 [=====] - 0s 302ms/step
59%|          | 1064/1796 [06:43<05:19, 2.29it/s]
1/1 [=====] - 0s 294ms/step
59%|          | 1065/1796 [06:43<05:10, 2.35it/s]
1/1 [=====] - 0s 280ms/step
59%|          | 1066/1796 [06:43<04:59, 2.43it/s]
1/1 [=====] - 0s 296ms/step
59%|          | 1067/1796 [06:44<04:58, 2.45it/s]
1/1 [=====] - 0s 286ms/step
59%|          | 1068/1796 [06:44<04:56, 2.46it/s]
1/1 [=====] - 0s 263ms/step
60%|          | 1069/1796 [06:45<05:01, 2.41it/s]
1/1 [=====] - 0s 271ms/step
60%|          | 1070/1796 [06:45<04:56, 2.45it/s]
1/1 [=====] - 0s 293ms/step
60%|          | 1071/1796 [06:45<04:53, 2.47it/s]
1/1 [=====] - 0s 277ms/step
60%|          | 1072/1796 [06:46<04:48, 2.51it/s]
1/1 [=====] - 0s 269ms/step
60%|          | 1073/1796 [06:46<04:47, 2.51it/s]
1/1 [=====] - 0s 272ms/step

```

60%| | 1074/1796 [06:47<04:42, 2.55it/s]
 1/1 [=====] - 0s 323ms/step
 60%| | 1075/1796 [06:47<05:00, 2.40it/s]
 1/1 [=====] - 0s 290ms/step
 60%| | 1076/1796 [06:48<05:04, 2.36it/s]
 1/1 [=====] - 0s 287ms/step
 60%| | 1077/1796 [06:48<05:07, 2.34it/s]
 1/1 [=====] - 0s 286ms/step
 60%| | 1078/1796 [06:48<05:11, 2.30it/s]
 1/1 [=====] - 0s 296ms/step
 60%| | 1079/1796 [06:49<05:15, 2.28it/s]
 1/1 [=====] - 0s 294ms/step
 60%| | 1080/1796 [06:49<05:18, 2.25it/s]
 1/1 [=====] - 0s 269ms/step
 60%| | 1081/1796 [06:50<05:09, 2.31it/s]
 1/1 [=====] - 0s 283ms/step
 60%| | 1082/1796 [06:50<05:01, 2.37it/s]
 1/1 [=====] - 0s 298ms/step
 60%| | 1083/1796 [06:51<05:01, 2.37it/s]
 1/1 [=====] - 0s 275ms/step
 60%| | 1084/1796 [06:51<04:52, 2.44it/s]
 1/1 [=====] - 0s 300ms/step
 60%| | 1085/1796 [06:51<04:57, 2.39it/s]
 1/1 [=====] - 0s 292ms/step
 60%| | 1086/1796 [06:52<05:02, 2.34it/s]
 1/1 [=====] - 0s 291ms/step
 61%| | 1087/1796 [06:52<05:18, 2.22it/s]
 1/1 [=====] - 0s 292ms/step
 61%| | 1088/1796 [06:53<05:18, 2.22it/s]
 1/1 [=====] - 0s 294ms/step
 61%| | 1089/1796 [06:53<05:17, 2.22it/s]
 1/1 [=====] - 0s 320ms/step


```

61%|          | 1090/1796 [06:54<05:22, 2.19it/s]
1/1 [=====] - 0s 291ms/step
61%|          | 1091/1796 [06:54<05:19, 2.21it/s]
1/1 [=====] - 0s 295ms/step
61%|          | 1092/1796 [06:55<05:18, 2.21it/s]
1/1 [=====] - 0s 309ms/step
61%|          | 1093/1796 [06:55<05:28, 2.14it/s]
1/1 [=====] - 0s 301ms/step
61%|          | 1094/1796 [06:56<05:36, 2.09it/s]
1/1 [=====] - 0s 305ms/step
61%|          | 1095/1796 [06:56<05:33, 2.10it/s]
1/1 [=====] - 0s 296ms/step
61%|          | 1096/1796 [06:57<05:26, 2.14it/s]
1/1 [=====] - 0s 336ms/step
61%|          | 1097/1796 [06:57<05:30, 2.11it/s]
1/1 [=====] - 0s 272ms/step
61%|          | 1098/1796 [06:57<05:16, 2.21it/s]
1/1 [=====] - 0s 271ms/step
61%|          | 1099/1796 [06:58<05:02, 2.31it/s]
1/1 [=====] - 0s 276ms/step
61%|          | 1100/1796 [06:58<05:05, 2.27it/s]
1/1 [=====] - 0s 284ms/step
61%|          | 1101/1796 [06:59<04:59, 2.32it/s]
1/1 [=====] - 0s 281ms/step
61%|          | 1102/1796 [06:59<04:51, 2.38it/s]
1/1 [=====] - 0s 305ms/step
61%|          | 1103/1796 [07:00<04:56, 2.33it/s]
1/1 [=====] - 0s 286ms/step
61%|          | 1104/1796 [07:00<04:58, 2.31it/s]
1/1 [=====] - 0s 311ms/step
62%|          | 1105/1796 [07:00<05:10, 2.22it/s]
1/1 [=====] - 0s 289ms/step

```

```

62%|          | 1106/1796 [07:01<05:12, 2.21it/s]
1/1 [=====] - 0s 310ms/step
62%|          | 1107/1796 [07:01<05:13, 2.20it/s]
1/1 [=====] - 0s 286ms/step
62%|          | 1108/1796 [07:02<05:09, 2.23it/s]
1/1 [=====] - 0s 291ms/step
62%|          | 1109/1796 [07:02<05:07, 2.24it/s]
1/1 [=====] - 0s 300ms/step
62%|          | 1110/1796 [07:03<05:09, 2.22it/s]
1/1 [=====] - 0s 290ms/step
62%|          | 1111/1796 [07:03<05:07, 2.23it/s]
1/1 [=====] - 0s 302ms/step
62%|          | 1112/1796 [07:04<05:12, 2.19it/s]
1/1 [=====] - 0s 302ms/step
62%|          | 1113/1796 [07:04<05:11, 2.19it/s]
1/1 [=====] - 0s 290ms/step
62%|          | 1114/1796 [07:05<05:08, 2.21it/s]
1/1 [=====] - 0s 317ms/step
62%|          | 1115/1796 [07:05<05:12, 2.18it/s]
1/1 [=====] - 0s 289ms/step
62%|          | 1116/1796 [07:05<05:08, 2.20it/s]
1/1 [=====] - 0s 297ms/step
62%|          | 1117/1796 [07:06<05:17, 2.14it/s]
1/1 [=====] - 0s 277ms/step
62%|          | 1118/1796 [07:06<05:04, 2.23it/s]
1/1 [=====] - 0s 291ms/step
62%|          | 1119/1796 [07:07<04:54, 2.30it/s]
1/1 [=====] - 0s 286ms/step
62%|          | 1120/1796 [07:07<04:48, 2.35it/s]
1/1 [=====] - 0s 298ms/step
62%|          | 1121/1796 [07:08<04:45, 2.37it/s]
1/1 [=====] - 0s 312ms/step

```

```

62%|          | 1122/1796 [07:08<05:02, 2.23it/s]
1/1 [=====] - 0s 290ms/step
63%|          | 1123/1796 [07:09<05:02, 2.22it/s]
1/1 [=====] - 0s 291ms/step
63%|          | 1124/1796 [07:09<05:01, 2.23it/s]
1/1 [=====] - 0s 319ms/step
63%|          | 1125/1796 [07:09<05:06, 2.19it/s]
1/1 [=====] - 0s 290ms/step
63%|          | 1126/1796 [07:10<05:03, 2.21it/s]
1/1 [=====] - 0s 318ms/step
63%|          | 1127/1796 [07:10<05:06, 2.18it/s]
1/1 [=====] - 0s 293ms/step
63%|          | 1128/1796 [07:11<05:03, 2.20it/s]
1/1 [=====] - 0s 307ms/step
63%|          | 1129/1796 [07:11<05:12, 2.13it/s]
1/1 [=====] - 0s 295ms/step
63%|          | 1130/1796 [07:12<05:14, 2.12it/s]
1/1 [=====] - 0s 290ms/step
63%|          | 1131/1796 [07:12<05:07, 2.16it/s]
1/1 [=====] - 0s 302ms/step
63%|          | 1132/1796 [07:13<05:06, 2.16it/s]
1/1 [=====] - 0s 308ms/step
63%|          | 1133/1796 [07:13<05:04, 2.18it/s]
1/1 [=====] - 0s 297ms/step
63%|          | 1134/1796 [07:14<04:51, 2.27it/s]
1/1 [=====] - 0s 282ms/step
63%|          | 1135/1796 [07:14<04:41, 2.35it/s]
1/1 [=====] - 0s 272ms/step
63%|          | 1136/1796 [07:14<04:42, 2.34it/s]
1/1 [=====] - 0s 306ms/step
63%|          | 1137/1796 [07:15<04:38, 2.37it/s]
1/1 [=====] - 0s 299ms/step

```

```

63%|          | 1138/1796 [07:15<04:35, 2.39it/s]
1/1 [=====] - 0s 284ms/step
63%|          | 1139/1796 [07:16<04:29, 2.44it/s]
1/1 [=====] - 0s 286ms/step
63%|          | 1140/1796 [07:16<04:28, 2.44it/s]
1/1 [=====] - 0s 291ms/step
64%|          | 1141/1796 [07:16<04:33, 2.39it/s]
1/1 [=====] - 0s 296ms/step
64%|          | 1142/1796 [07:17<04:33, 2.39it/s]
1/1 [=====] - 0s 283ms/step
64%|          | 1143/1796 [07:17<04:33, 2.39it/s]
1/1 [=====] - 0s 287ms/step
64%|          | 1144/1796 [07:18<04:28, 2.43it/s]
1/1 [=====] - 0s 301ms/step
64%|          | 1145/1796 [07:18<04:35, 2.36it/s]
1/1 [=====] - 0s 268ms/step
64%|          | 1146/1796 [07:18<04:27, 2.43it/s]
1/1 [=====] - 0s 271ms/step
64%|          | 1147/1796 [07:19<04:20, 2.49it/s]
1/1 [=====] - 0s 283ms/step
64%|          | 1148/1796 [07:19<04:20, 2.49it/s]
1/1 [=====] - 0s 307ms/step
64%|          | 1149/1796 [07:20<04:23, 2.45it/s]
1/1 [=====] - 0s 301ms/step
64%|          | 1150/1796 [07:20<04:28, 2.40it/s]
1/1 [=====] - 0s 303ms/step
64%|          | 1151/1796 [07:21<04:41, 2.29it/s]
1/1 [=====] - 0s 293ms/step
64%|          | 1152/1796 [07:21<04:44, 2.27it/s]
1/1 [=====] - 0s 306ms/step
64%|          | 1153/1796 [07:22<04:53, 2.19it/s]
1/1 [=====] - 0s 293ms/step

```

```

64%|          | 1154/1796 [07:22<04:49, 2.21it/s]
1/1 [=====] - 0s 306ms/step
64%|          | 1155/1796 [07:22<04:49, 2.21it/s]
1/1 [=====] - 0s 310ms/step
64%|          | 1156/1796 [07:23<04:56, 2.16it/s]
1/1 [=====] - 0s 285ms/step
64%|          | 1157/1796 [07:23<04:49, 2.20it/s]
1/1 [=====] - 0s 301ms/step
64%|          | 1158/1796 [07:24<04:48, 2.21it/s]
1/1 [=====] - 0s 289ms/step
65%|          | 1159/1796 [07:24<04:45, 2.23it/s]
1/1 [=====] - 0s 311ms/step
65%|          | 1160/1796 [07:25<04:48, 2.21it/s]
1/1 [=====] - 0s 297ms/step
65%|          | 1161/1796 [07:25<04:45, 2.22it/s]
1/1 [=====] - 0s 297ms/step
65%|          | 1162/1796 [07:26<04:51, 2.18it/s]
1/1 [=====] - 0s 298ms/step
65%|          | 1163/1796 [07:26<04:48, 2.20it/s]
1/1 [=====] - 0s 313ms/step
65%|          | 1164/1796 [07:27<04:51, 2.17it/s]
1/1 [=====] - 0s 294ms/step
65%|          | 1165/1796 [07:27<04:47, 2.19it/s]
1/1 [=====] - 0s 268ms/step
65%|          | 1166/1796 [07:27<04:32, 2.31it/s]
1/1 [=====] - 0s 303ms/step
65%|          | 1167/1796 [07:28<04:26, 2.36it/s]
1/1 [=====] - 0s 289ms/step
65%|          | 1168/1796 [07:28<04:22, 2.39it/s]
1/1 [=====] - 0s 292ms/step
65%|          | 1169/1796 [07:29<04:16, 2.44it/s]
1/1 [=====] - 0s 313ms/step

```

```

65%|          | 1170/1796 [07:29<04:26, 2.35it/s]
1/1 [=====] - 0s 305ms/step
65%|          | 1171/1796 [07:30<04:36, 2.26it/s]
1/1 [=====] - 0s 296ms/step
65%|          | 1172/1796 [07:30<04:39, 2.23it/s]
1/1 [=====] - 0s 310ms/step
65%|          | 1173/1796 [07:30<04:41, 2.22it/s]
1/1 [=====] - 0s 296ms/step
65%|          | 1174/1796 [07:31<04:40, 2.22it/s]
1/1 [=====] - 0s 306ms/step
65%|          | 1175/1796 [07:31<04:41, 2.20it/s]
1/1 [=====] - 0s 302ms/step
65%|          | 1176/1796 [07:32<04:44, 2.18it/s]
1/1 [=====] - 0s 302ms/step
66%|          | 1177/1796 [07:32<04:47, 2.15it/s]
1/1 [=====] - 0s 303ms/step
66%|          | 1178/1796 [07:33<04:45, 2.17it/s]
1/1 [=====] - 0s 291ms/step
66%|          | 1179/1796 [07:33<04:44, 2.17it/s]
1/1 [=====] - 0s 292ms/step
66%|          | 1180/1796 [07:34<04:41, 2.19it/s]
1/1 [=====] - 0s 291ms/step
66%|          | 1181/1796 [07:34<04:38, 2.21it/s]
1/1 [=====] - 0s 308ms/step
66%|          | 1182/1796 [07:35<04:39, 2.20it/s]
1/1 [=====] - 0s 292ms/step
66%|          | 1183/1796 [07:35<04:31, 2.26it/s]
1/1 [=====] - 0s 275ms/step
66%|          | 1184/1796 [07:35<04:18, 2.36it/s]
1/1 [=====] - 0s 275ms/step
66%|          | 1185/1796 [07:36<04:12, 2.42it/s]
1/1 [=====] - 0s 282ms/step

```

```

66%|          | 1186/1796 [07:36<04:08, 2.45it/s]
1/1 [=====] - 0s 270ms/step
66%|          | 1187/1796 [07:37<04:12, 2.41it/s]
1/1 [=====] - 0s 300ms/step
66%|          | 1188/1796 [07:37<04:18, 2.35it/s]
1/1 [=====] - 0s 307ms/step
66%|          | 1189/1796 [07:38<04:30, 2.24it/s]
1/1 [=====] - 0s 312ms/step
66%|          | 1190/1796 [07:38<04:33, 2.21it/s]
1/1 [=====] - 0s 291ms/step
66%|          | 1191/1796 [07:38<04:35, 2.19it/s]
1/1 [=====] - 0s 304ms/step
66%|          | 1192/1796 [07:39<04:34, 2.20it/s]
1/1 [=====] - 0s 303ms/step
66%|          | 1193/1796 [07:39<04:34, 2.20it/s]
1/1 [=====] - 0s 287ms/step
66%|          | 1194/1796 [07:40<04:29, 2.24it/s]
1/1 [=====] - 0s 288ms/step
67%|          | 1195/1796 [07:40<04:31, 2.22it/s]
1/1 [=====] - 0s 291ms/step
67%|          | 1196/1796 [07:41<04:27, 2.24it/s]
1/1 [=====] - 0s 304ms/step
67%|          | 1197/1796 [07:41<04:28, 2.23it/s]
1/1 [=====] - 0s 300ms/step
67%|          | 1198/1796 [07:42<04:33, 2.19it/s]
1/1 [=====] - 0s 300ms/step
67%|          | 1199/1796 [07:42<04:33, 2.18it/s]
1/1 [=====] - 0s 303ms/step
67%|          | 1200/1796 [07:43<04:32, 2.19it/s]
1/1 [=====] - 0s 290ms/step
67%|          | 1201/1796 [07:43<04:35, 2.16it/s]
1/1 [=====] - 0s 281ms/step

```

```

67%|          | 1202/1796 [07:43<04:19, 2.29it/s]
1/1 [=====] - 0s 281ms/step
67%|          | 1203/1796 [07:44<04:19, 2.29it/s]
1/1 [=====] - 0s 279ms/step
67%|          | 1204/1796 [07:44<04:07, 2.39it/s]
1/1 [=====] - 0s 275ms/step
67%|          | 1205/1796 [07:45<03:59, 2.47it/s]
1/1 [=====] - 0s 302ms/step
67%|          | 1206/1796 [07:45<03:57, 2.48it/s]
1/1 [=====] - 0s 266ms/step
67%|          | 1207/1796 [07:45<03:52, 2.53it/s]
1/1 [=====] - 0s 284ms/step
67%|          | 1208/1796 [07:46<03:51, 2.54it/s]
1/1 [=====] - 0s 284ms/step
67%|          | 1209/1796 [07:46<03:50, 2.55it/s]
1/1 [=====] - 0s 269ms/step
67%|          | 1210/1796 [07:46<03:45, 2.59it/s]
1/1 [=====] - 0s 282ms/step
67%|          | 1211/1796 [07:47<03:56, 2.48it/s]
1/1 [=====] - 0s 266ms/step
67%|          | 1212/1796 [07:47<03:53, 2.50it/s]
1/1 [=====] - 0s 276ms/step
68%|          | 1213/1796 [07:48<03:52, 2.50it/s]
1/1 [=====] - 0s 283ms/step
68%|          | 1214/1796 [07:48<03:49, 2.54it/s]
1/1 [=====] - 0s 267ms/step
68%|          | 1215/1796 [07:48<03:44, 2.59it/s]
1/1 [=====] - 0s 277ms/step
68%|          | 1216/1796 [07:49<03:42, 2.61it/s]
1/1 [=====] - 0s 269ms/step
68%|          | 1217/1796 [07:49<03:41, 2.62it/s]
1/1 [=====] - 0s 265ms/step

```



```

68%|          | 1218/1796 [07:50<03:45, 2.57it/s]
1/1 [=====] - 0s 275ms/step
68%|          | 1219/1796 [07:50<03:43, 2.59it/s]
1/1 [=====] - 0s 278ms/step
68%|          | 1220/1796 [07:50<03:40, 2.62it/s]
1/1 [=====] - 0s 262ms/step
68%|          | 1221/1796 [07:51<03:36, 2.66it/s]
1/1 [=====] - 0s 295ms/step
68%|          | 1222/1796 [07:51<03:38, 2.63it/s]
1/1 [=====] - 0s 280ms/step
68%|          | 1223/1796 [07:52<03:45, 2.54it/s]
1/1 [=====] - 0s 261ms/step
68%|          | 1224/1796 [07:52<03:38, 2.62it/s]
1/1 [=====] - 0s 257ms/step
68%|          | 1225/1796 [07:52<03:39, 2.60it/s]
1/1 [=====] - 0s 271ms/step
68%|          | 1226/1796 [07:53<03:36, 2.63it/s]
1/1 [=====] - 0s 276ms/step
68%|          | 1227/1796 [07:53<03:43, 2.54it/s]
1/1 [=====] - 0s 262ms/step
68%|          | 1228/1796 [07:53<03:37, 2.61it/s]
1/1 [=====] - 0s 282ms/step
68%|          | 1229/1796 [07:54<03:36, 2.62it/s]
1/1 [=====] - 0s 286ms/step
68%|          | 1230/1796 [07:54<03:36, 2.61it/s]
1/1 [=====] - 0s 265ms/step
69%|          | 1231/1796 [07:55<03:34, 2.64it/s]
1/1 [=====] - 0s 278ms/step
69%|          | 1232/1796 [07:55<03:41, 2.55it/s]
1/1 [=====] - 0s 279ms/step
69%|          | 1233/1796 [07:55<03:38, 2.58it/s]
1/1 [=====] - 0s 267ms/step

```

```

69%|          | 1234/1796 [07:56<03:33, 2.63it/s]
1/1 [=====] - 0s 284ms/step
69%|          | 1235/1796 [07:56<03:34, 2.62it/s]
1/1 [=====] - 0s 286ms/step
69%|          | 1236/1796 [07:57<03:39, 2.56it/s]
1/1 [=====] - 0s 272ms/step
69%|          | 1237/1796 [07:57<03:39, 2.55it/s]
1/1 [=====] - 0s 282ms/step
69%|          | 1238/1796 [07:57<03:38, 2.55it/s]
1/1 [=====] - 0s 274ms/step
69%|          | 1239/1796 [07:58<03:35, 2.59it/s]
1/1 [=====] - 0s 266ms/step
69%|          | 1240/1796 [07:58<03:31, 2.63it/s]
1/1 [=====] - 0s 355ms/step
69%|          | 1241/1796 [07:59<03:43, 2.49it/s]
1/1 [=====] - 0s 279ms/step
69%|          | 1242/1796 [07:59<03:37, 2.55it/s]
1/1 [=====] - 0s 276ms/step
69%|          | 1243/1796 [07:59<03:34, 2.58it/s]
1/1 [=====] - 0s 263ms/step
69%|          | 1244/1796 [08:00<03:29, 2.63it/s]
1/1 [=====] - 0s 281ms/step
69%|          | 1245/1796 [08:00<03:28, 2.64it/s]
1/1 [=====] - 0s 279ms/step
69%|          | 1246/1796 [08:00<03:28, 2.64it/s]
1/1 [=====] - 0s 264ms/step
69%|          | 1247/1796 [08:01<03:25, 2.67it/s]
1/1 [=====] - 0s 267ms/step
69%|          | 1248/1796 [08:01<03:34, 2.55it/s]
1/1 [=====] - 0s 275ms/step
70%|          | 1249/1796 [08:02<03:34, 2.55it/s]
1/1 [=====] - 0s 270ms/step

```

```

70%|          | 1250/1796 [08:02<03:30, 2.60it/s]
1/1 [=====] - 0s 270ms/step
70%|          | 1251/1796 [08:02<03:29, 2.60it/s]
1/1 [=====] - 0s 272ms/step
70%|          | 1252/1796 [08:03<03:25, 2.64it/s]
1/1 [=====] - 0s 278ms/step
70%|          | 1253/1796 [08:03<03:25, 2.65it/s]
1/1 [=====] - 0s 263ms/step
70%|          | 1254/1796 [08:03<03:29, 2.59it/s]
1/1 [=====] - 0s 277ms/step
70%|          | 1255/1796 [08:04<03:28, 2.60it/s]
1/1 [=====] - 0s 271ms/step
70%|          | 1256/1796 [08:04<03:24, 2.64it/s]
1/1 [=====] - 0s 262ms/step
70%|          | 1257/1796 [08:05<03:21, 2.68it/s]
1/1 [=====] - 0s 275ms/step
70%|          | 1258/1796 [08:05<03:20, 2.68it/s]
1/1 [=====] - 0s 271ms/step
70%|          | 1259/1796 [08:05<03:20, 2.68it/s]
1/1 [=====] - 0s 265ms/step
70%|          | 1260/1796 [08:06<03:18, 2.70it/s]
1/1 [=====] - 0s 282ms/step
70%|          | 1261/1796 [08:06<03:24, 2.62it/s]
1/1 [=====] - 0s 276ms/step
70%|          | 1262/1796 [08:07<03:29, 2.55it/s]
1/1 [=====] - 0s 269ms/step
70%|          | 1263/1796 [08:07<03:25, 2.59it/s]
1/1 [=====] - 0s 272ms/step
70%|          | 1264/1796 [08:07<03:22, 2.62it/s]
1/1 [=====] - 0s 288ms/step
70%|          | 1265/1796 [08:08<03:23, 2.61it/s]
1/1 [=====] - 0s 262ms/step

```

```

70%|          | 1266/1796 [08:08<03:20, 2.65it/s]
1/1 [=====] - 0s 270ms/step
71%|          | 1267/1796 [08:08<03:25, 2.57it/s]
1/1 [=====] - 0s 288ms/step
71%|          | 1268/1796 [08:09<03:26, 2.56it/s]
1/1 [=====] - 0s 268ms/step
71%|          | 1269/1796 [08:09<03:21, 2.61it/s]
1/1 [=====] - 0s 278ms/step
71%|          | 1270/1796 [08:10<03:20, 2.62it/s]
1/1 [=====] - 0s 276ms/step
71%|          | 1271/1796 [08:10<03:18, 2.64it/s]
1/1 [=====] - 0s 261ms/step
71%|          | 1272/1796 [08:10<03:17, 2.65it/s]
1/1 [=====] - 0s 270ms/step
71%|          | 1273/1796 [08:11<03:20, 2.61it/s]
1/1 [=====] - 0s 281ms/step
71%|          | 1274/1796 [08:11<03:26, 2.53it/s]
1/1 [=====] - 0s 263ms/step
71%|          | 1275/1796 [08:12<03:20, 2.60it/s]
1/1 [=====] - 0s 266ms/step
71%|          | 1276/1796 [08:12<03:16, 2.64it/s]
1/1 [=====] - 0s 276ms/step
71%|          | 1277/1796 [08:12<03:15, 2.66it/s]
1/1 [=====] - 0s 261ms/step
71%|          | 1278/1796 [08:13<03:13, 2.68it/s]
1/1 [=====] - 0s 284ms/step
71%|          | 1279/1796 [08:13<03:20, 2.58it/s]
1/1 [=====] - 0s 276ms/step
71%|          | 1280/1796 [08:13<03:16, 2.62it/s]
1/1 [=====] - 0s 261ms/step
71%|          | 1281/1796 [08:14<03:12, 2.67it/s]
1/1 [=====] - 0s 275ms/step

```

```

71%|      | 1282/1796 [08:14<03:12, 2.67it/s]
1/1 [=====] - 0s 280ms/step
71%|      | 1283/1796 [08:15<03:13, 2.66it/s]
1/1 [=====] - 0s 262ms/step
71%|      | 1284/1796 [08:15<03:17, 2.60it/s]
1/1 [=====] - 0s 268ms/step
72%|      | 1285/1796 [08:15<03:17, 2.58it/s]
1/1 [=====] - 0s 270ms/step
72%|      | 1286/1796 [08:16<03:14, 2.62it/s]
1/1 [=====] - 0s 265ms/step
72%|      | 1287/1796 [08:16<03:11, 2.66it/s]
1/1 [=====] - 0s 287ms/step
72%|      | 1288/1796 [08:16<03:13, 2.62it/s]
1/1 [=====] - 0s 265ms/step
72%|      | 1289/1796 [08:17<03:12, 2.64it/s]
1/1 [=====] - 0s 270ms/step
72%|      | 1290/1796 [08:17<03:09, 2.67it/s]
1/1 [=====] - 0s 290ms/step
72%|      | 1291/1796 [08:18<03:11, 2.64it/s]
1/1 [=====] - 0s 291ms/step
72%|      | 1292/1796 [08:18<03:13, 2.61it/s]
1/1 [=====] - 0s 278ms/step
72%|      | 1293/1796 [08:18<03:12, 2.61it/s]
1/1 [=====] - 0s 278ms/step
72%|      | 1294/1796 [08:19<03:09, 2.64it/s]
1/1 [=====] - 0s 359ms/step
72%|      | 1295/1796 [08:19<03:22, 2.47it/s]
1/1 [=====] - 0s 262ms/step
72%|      | 1296/1796 [08:20<03:16, 2.55it/s]
1/1 [=====] - 0s 261ms/step
72%|      | 1297/1796 [08:20<03:14, 2.56it/s]
1/1 [=====] - 0s 262ms/step

```

```

72%|          | 1298/1796 [08:20<03:12, 2.58it/s]
1/1 [=====] - 0s 287ms/step
72%|          | 1299/1796 [08:21<03:16, 2.53it/s]
1/1 [=====] - 0s 303ms/step
72%|          | 1300/1796 [08:21<03:25, 2.41it/s]
1/1 [=====] - 0s 289ms/step
72%|          | 1301/1796 [08:22<03:23, 2.44it/s]
1/1 [=====] - 0s 275ms/step
72%|          | 1302/1796 [08:22<03:17, 2.50it/s]
1/1 [=====] - 0s 276ms/step
73%|          | 1303/1796 [08:22<03:12, 2.55it/s]
1/1 [=====] - 0s 260ms/step
73%|          | 1304/1796 [08:23<03:09, 2.60it/s]
1/1 [=====] - 0s 277ms/step
73%|          | 1305/1796 [08:23<03:08, 2.60it/s]
1/1 [=====] - 0s 277ms/step
73%|          | 1306/1796 [08:23<03:05, 2.63it/s]
1/1 [=====] - 0s 261ms/step
73%|          | 1307/1796 [08:24<03:09, 2.58it/s]
1/1 [=====] - 0s 278ms/step
73%|          | 1308/1796 [08:24<03:08, 2.59it/s]
1/1 [=====] - 0s 275ms/step
73%|          | 1309/1796 [08:25<03:10, 2.55it/s]
1/1 [=====] - 0s 271ms/step
73%|          | 1310/1796 [08:25<03:07, 2.60it/s]
1/1 [=====] - 0s 287ms/step
73%|          | 1311/1796 [08:25<03:06, 2.60it/s]
1/1 [=====] - 0s 282ms/step
73%|          | 1312/1796 [08:26<03:12, 2.51it/s]
1/1 [=====] - 0s 297ms/step
73%|          | 1313/1796 [08:26<03:13, 2.49it/s]
1/1 [=====] - 0s 272ms/step

```

```

73%|      | 1314/1796 [08:27<03:13, 2.49it/s]
1/1 [=====] - 0s 292ms/step
73%|      | 1315/1796 [08:27<03:18, 2.42it/s]
1/1 [=====] - 0s 281ms/step
73%|      | 1316/1796 [08:27<03:17, 2.43it/s]
1/1 [=====] - 0s 297ms/step
73%|      | 1317/1796 [08:28<03:19, 2.41it/s]
1/1 [=====] - 0s 295ms/step
73%|      | 1318/1796 [08:28<03:26, 2.31it/s]
1/1 [=====] - 0s 282ms/step
73%|      | 1319/1796 [08:29<03:19, 2.39it/s]
1/1 [=====] - 0s 294ms/step
73%|      | 1320/1796 [08:29<03:17, 2.41it/s]
1/1 [=====] - 0s 289ms/step
74%|      | 1321/1796 [08:30<03:19, 2.38it/s]
1/1 [=====] - 0s 283ms/step
74%|      | 1322/1796 [08:30<03:16, 2.41it/s]
1/1 [=====] - 0s 295ms/step
74%|      | 1323/1796 [08:30<03:23, 2.32it/s]
1/1 [=====] - 0s 293ms/step
74%|      | 1324/1796 [08:31<03:18, 2.37it/s]
1/1 [=====] - 0s 299ms/step
74%|      | 1325/1796 [08:31<03:17, 2.39it/s]
1/1 [=====] - 0s 270ms/step
74%|      | 1326/1796 [08:32<03:11, 2.46it/s]
1/1 [=====] - 0s 281ms/step
74%|      | 1327/1796 [08:32<03:07, 2.50it/s]
1/1 [=====] - 0s 282ms/step
74%|      | 1328/1796 [08:32<03:06, 2.51it/s]
1/1 [=====] - 0s 271ms/step
74%|      | 1329/1796 [08:33<03:05, 2.52it/s]
1/1 [=====] - 0s 263ms/step

```

```

74%|          | 1330/1796 [08:33<03:00, 2.58it/s]
1/1 [=====] - 0s 272ms/step
74%|          | 1331/1796 [08:34<03:04, 2.52it/s]
1/1 [=====] - 0s 267ms/step
74%|          | 1332/1796 [08:34<02:59, 2.58it/s]
1/1 [=====] - 0s 261ms/step
74%|          | 1333/1796 [08:34<02:59, 2.57it/s]
1/1 [=====] - 0s 262ms/step
74%|          | 1334/1796 [08:35<02:58, 2.59it/s]
1/1 [=====] - 0s 274ms/step
74%|          | 1335/1796 [08:35<02:56, 2.61it/s]
1/1 [=====] - 0s 262ms/step
74%|          | 1336/1796 [08:35<02:54, 2.64it/s]
1/1 [=====] - 0s 263ms/step
74%|          | 1337/1796 [08:36<02:52, 2.66it/s]
1/1 [=====] - 0s 285ms/step
74%|          | 1338/1796 [08:36<03:00, 2.54it/s]
1/1 [=====] - 0s 273ms/step
75%|          | 1339/1796 [08:37<02:57, 2.57it/s]
1/1 [=====] - 0s 300ms/step
75%|          | 1340/1796 [08:37<02:58, 2.56it/s]
1/1 [=====] - 0s 276ms/step
75%|          | 1341/1796 [08:37<02:57, 2.57it/s]
1/1 [=====] - 0s 274ms/step
75%|          | 1342/1796 [08:38<02:54, 2.60it/s]
1/1 [=====] - 0s 272ms/step
75%|          | 1343/1796 [08:38<02:57, 2.55it/s]
1/1 [=====] - 0s 292ms/step
75%|          | 1344/1796 [08:39<02:56, 2.56it/s]
1/1 [=====] - 0s 274ms/step
75%|          | 1345/1796 [08:39<02:58, 2.52it/s]
1/1 [=====] - 0s 261ms/step

```



```

75%|      | 1346/1796 [08:39<02:54, 2.58it/s]
1/1 [=====] - 0s 267ms/step
75%|      | 1347/1796 [08:40<02:50, 2.63it/s]
1/1 [=====] - 0s 284ms/step
75%|      | 1348/1796 [08:40<02:52, 2.60it/s]
1/1 [=====] - 0s 267ms/step
75%|      | 1349/1796 [08:41<02:49, 2.63it/s]
1/1 [=====] - 0s 267ms/step
75%|      | 1350/1796 [08:41<02:48, 2.65it/s]
1/1 [=====] - 0s 271ms/step
75%|      | 1351/1796 [08:41<02:53, 2.56it/s]
1/1 [=====] - 0s 267ms/step
75%|      | 1352/1796 [08:42<02:49, 2.61it/s]
1/1 [=====] - 0s 266ms/step
75%|      | 1353/1796 [08:42<02:49, 2.62it/s]
1/1 [=====] - 0s 267ms/step
75%|      | 1354/1796 [08:42<02:46, 2.65it/s]
1/1 [=====] - 0s 272ms/step
75%|      | 1355/1796 [08:43<02:47, 2.63it/s]
1/1 [=====] - 0s 266ms/step
76%|      | 1356/1796 [08:43<02:50, 2.58it/s]
1/1 [=====] - 0s 269ms/step
76%|      | 1357/1796 [08:44<02:51, 2.55it/s]
1/1 [=====] - 0s 278ms/step
76%|      | 1358/1796 [08:44<02:50, 2.57it/s]
1/1 [=====] - 0s 264ms/step
76%|      | 1359/1796 [08:44<02:46, 2.62it/s]
1/1 [=====] - 0s 282ms/step
76%|      | 1360/1796 [08:45<02:45, 2.63it/s]
1/1 [=====] - 0s 282ms/step
76%|      | 1361/1796 [08:45<02:45, 2.62it/s]
1/1 [=====] - 0s 261ms/step

```

```

76%|      | 1362/1796 [08:46<02:44, 2.65it/s]
1/1 [=====] - 0s 280ms/step
76%|      | 1363/1796 [08:46<02:44, 2.63it/s]
1/1 [=====] - 0s 278ms/step
76%|      | 1364/1796 [08:46<02:50, 2.53it/s]
1/1 [=====] - 0s 277ms/step
76%|      | 1365/1796 [08:47<02:48, 2.55it/s]
1/1 [=====] - 0s 307ms/step
76%|      | 1366/1796 [08:47<02:53, 2.48it/s]
1/1 [=====] - 0s 296ms/step
76%|      | 1367/1796 [08:48<02:53, 2.48it/s]
1/1 [=====] - 0s 287ms/step
76%|      | 1368/1796 [08:48<02:51, 2.49it/s]
1/1 [=====] - 0s 300ms/step
76%|      | 1369/1796 [08:48<03:01, 2.35it/s]
1/1 [=====] - 0s 290ms/step
76%|      | 1370/1796 [08:49<03:01, 2.34it/s]
1/1 [=====] - 0s 291ms/step
76%|      | 1371/1796 [08:49<02:58, 2.38it/s]
1/1 [=====] - 0s 276ms/step
76%|      | 1372/1796 [08:50<02:53, 2.44it/s]
1/1 [=====] - 0s 260ms/step
76%|      | 1373/1796 [08:50<02:48, 2.52it/s]
1/1 [=====] - 0s 263ms/step
77%|      | 1374/1796 [08:50<02:50, 2.48it/s]
1/1 [=====] - 0s 291ms/step
77%|      | 1375/1796 [08:51<02:47, 2.51it/s]
1/1 [=====] - 0s 268ms/step
77%|      | 1376/1796 [08:51<02:43, 2.57it/s]
1/1 [=====] - 0s 264ms/step
77%|      | 1377/1796 [08:52<02:40, 2.60it/s]
1/1 [=====] - 0s 276ms/step

```

```

77%|      | 1378/1796 [08:52<02:39, 2.61it/s]
1/1 [=====] - 0s 269ms/step
77%|      | 1379/1796 [08:52<02:38, 2.64it/s]
1/1 [=====] - 0s 270ms/step
77%|      | 1380/1796 [08:53<02:38, 2.63it/s]
1/1 [=====] - 0s 264ms/step
77%|      | 1381/1796 [08:53<02:45, 2.51it/s]
1/1 [=====] - 0s 289ms/step
77%|      | 1382/1796 [08:54<02:43, 2.53it/s]
1/1 [=====] - 0s 263ms/step
77%|      | 1383/1796 [08:54<02:39, 2.59it/s]
1/1 [=====] - 0s 258ms/step
77%|      | 1384/1796 [08:54<02:37, 2.62it/s]
1/1 [=====] - 0s 275ms/step
77%|      | 1385/1796 [08:55<02:35, 2.63it/s]
1/1 [=====] - 0s 292ms/step
77%|      | 1386/1796 [08:55<02:42, 2.53it/s]
1/1 [=====] - 0s 262ms/step
77%|      | 1387/1796 [08:55<02:39, 2.57it/s]
1/1 [=====] - 0s 275ms/step
77%|      | 1388/1796 [08:56<02:38, 2.57it/s]
1/1 [=====] - 0s 277ms/step
77%|      | 1389/1796 [08:56<02:36, 2.60it/s]
1/1 [=====] - 0s 264ms/step
77%|      | 1390/1796 [08:57<02:33, 2.64it/s]
1/1 [=====] - 0s 280ms/step
77%|      | 1391/1796 [08:57<02:40, 2.52it/s]
1/1 [=====] - 0s 279ms/step
78%|      | 1392/1796 [08:57<02:37, 2.56it/s]
1/1 [=====] - 0s 265ms/step
78%|      | 1393/1796 [08:58<02:40, 2.51it/s]
1/1 [=====] - 0s 282ms/step

```

```

78%|      | 1394/1796 [08:58<02:38, 2.53it/s]
1/1 [=====] - 0s 269ms/step
78%|      | 1395/1796 [08:59<02:35, 2.59it/s]
1/1 [=====] - 0s 280ms/step
78%|      | 1396/1796 [08:59<02:33, 2.61it/s]
1/1 [=====] - 0s 278ms/step
78%|      | 1397/1796 [08:59<02:34, 2.59it/s]
1/1 [=====] - 0s 263ms/step
78%|      | 1398/1796 [09:00<02:37, 2.52it/s]
1/1 [=====] - 0s 264ms/step
78%|      | 1399/1796 [09:00<02:33, 2.59it/s]
1/1 [=====] - 0s 273ms/step
78%|      | 1400/1796 [09:00<02:32, 2.59it/s]
1/1 [=====] - 0s 264ms/step
78%|      | 1401/1796 [09:01<02:30, 2.62it/s]
1/1 [=====] - 0s 263ms/step
78%|      | 1402/1796 [09:01<02:34, 2.55it/s]
1/1 [=====] - 0s 277ms/step
78%|      | 1403/1796 [09:02<02:32, 2.57it/s]
1/1 [=====] - 0s 275ms/step
78%|      | 1404/1796 [09:02<02:31, 2.59it/s]
1/1 [=====] - 0s 263ms/step
78%|      | 1405/1796 [09:02<02:31, 2.59it/s]
1/1 [=====] - 0s 281ms/step
78%|      | 1406/1796 [09:03<02:36, 2.49it/s]
1/1 [=====] - 0s 263ms/step
78%|      | 1407/1796 [09:03<02:32, 2.56it/s]
1/1 [=====] - 0s 271ms/step
78%|      | 1408/1796 [09:04<02:29, 2.60it/s]
1/1 [=====] - 0s 295ms/step
78%|      | 1409/1796 [09:04<02:30, 2.57it/s]
1/1 [=====] - 0s 290ms/step

```

```

79%|          | 1410/1796 [09:04<02:33, 2.52it/s]
1/1 [=====] - 0s 277ms/step
79%|          | 1411/1796 [09:05<02:30, 2.56it/s]
1/1 [=====] - 0s 303ms/step
79%|          | 1412/1796 [09:05<02:32, 2.51it/s]
1/1 [=====] - 0s 266ms/step
79%|          | 1413/1796 [09:06<02:29, 2.57it/s]
1/1 [=====] - 0s 280ms/step
79%|          | 1414/1796 [09:06<02:27, 2.59it/s]
1/1 [=====] - 0s 271ms/step
79%|          | 1415/1796 [09:06<02:32, 2.50it/s]
1/1 [=====] - 0s 279ms/step
79%|          | 1416/1796 [09:07<02:30, 2.53it/s]
1/1 [=====] - 0s 297ms/step
79%|          | 1417/1796 [09:07<02:33, 2.47it/s]
1/1 [=====] - 0s 270ms/step
79%|          | 1418/1796 [09:08<02:29, 2.53it/s]
1/1 [=====] - 0s 262ms/step
79%|          | 1419/1796 [09:08<02:25, 2.58it/s]
1/1 [=====] - 0s 282ms/step
79%|          | 1420/1796 [09:08<02:32, 2.47it/s]
1/1 [=====] - 0s 295ms/step
79%|          | 1421/1796 [09:09<02:31, 2.48it/s]
1/1 [=====] - 0s 289ms/step
79%|          | 1422/1796 [09:09<02:34, 2.42it/s]
1/1 [=====] - 0s 265ms/step
79%|          | 1423/1796 [09:10<02:31, 2.46it/s]
1/1 [=====] - 0s 265ms/step
79%|          | 1424/1796 [09:10<02:27, 2.53it/s]
1/1 [=====] - 0s 276ms/step
79%|          | 1425/1796 [09:10<02:29, 2.48it/s]
1/1 [=====] - 0s 265ms/step

```

```

79%|          | 1426/1796 [09:11<02:25, 2.54it/s]
1/1 [=====] - 0s 279ms/step
79%|          | 1427/1796 [09:11<02:23, 2.57it/s]
1/1 [=====] - 0s 289ms/step
80%|          | 1428/1796 [09:12<02:23, 2.57it/s]
1/1 [=====] - 0s 284ms/step
80%|          | 1429/1796 [09:12<02:25, 2.53it/s]
1/1 [=====] - 0s 265ms/step
80%|          | 1430/1796 [09:12<02:22, 2.57it/s]
1/1 [=====] - 0s 298ms/step
80%|          | 1431/1796 [09:13<02:27, 2.48it/s]
1/1 [=====] - 0s 265ms/step
80%|          | 1432/1796 [09:13<02:22, 2.55it/s]
1/1 [=====] - 0s 263ms/step
80%|          | 1433/1796 [09:13<02:19, 2.60it/s]
1/1 [=====] - 0s 281ms/step
80%|          | 1434/1796 [09:14<02:19, 2.60it/s]
1/1 [=====] - 0s 280ms/step
80%|          | 1435/1796 [09:14<02:21, 2.56it/s]
1/1 [=====] - 0s 272ms/step
80%|          | 1436/1796 [09:15<02:18, 2.59it/s]
1/1 [=====] - 0s 287ms/step
80%|          | 1437/1796 [09:15<02:18, 2.59it/s]
1/1 [=====] - 0s 271ms/step
80%|          | 1438/1796 [09:15<02:17, 2.61it/s]
1/1 [=====] - 0s 263ms/step
80%|          | 1439/1796 [09:16<02:20, 2.54it/s]
1/1 [=====] - 0s 287ms/step
80%|          | 1440/1796 [09:16<02:20, 2.54it/s]
1/1 [=====] - 0s 262ms/step
80%|          | 1441/1796 [09:17<02:18, 2.56it/s]
1/1 [=====] - 0s 293ms/step

```

80%| | 1442/1796 [09:17<02:18, 2.55it/s]
 1/1 [=====] - 0s 322ms/step
 80%| | 1443/1796 [09:17<02:23, 2.47it/s]
 1/1 [=====] - 0s 267ms/step
 80%| | 1444/1796 [09:18<02:18, 2.54it/s]
 1/1 [=====] - 0s 276ms/step
 80%| | 1445/1796 [09:18<02:16, 2.58it/s]
 1/1 [=====] - 0s 262ms/step
 81%| | 1446/1796 [09:19<02:14, 2.61it/s]
 1/1 [=====] - 0s 268ms/step
 81%| | 1447/1796 [09:19<02:16, 2.55it/s]
 1/1 [=====] - 0s 292ms/step
 81%| | 1448/1796 [09:19<02:17, 2.53it/s]
 1/1 [=====] - 0s 268ms/step
 81%| | 1449/1796 [09:20<02:16, 2.55it/s]
 1/1 [=====] - 0s 269ms/step
 81%| | 1450/1796 [09:20<02:14, 2.56it/s]
 1/1 [=====] - 0s 285ms/step
 81%| | 1451/1796 [09:21<02:13, 2.58it/s]
 1/1 [=====] - 0s 268ms/step
 81%| | 1452/1796 [09:21<02:12, 2.60it/s]
 1/1 [=====] - 0s 262ms/step
 81%| | 1453/1796 [09:21<02:12, 2.58it/s]
 1/1 [=====] - 0s 306ms/step
 81%| | 1454/1796 [09:22<02:20, 2.44it/s]
 1/1 [=====] - 0s 315ms/step
 81%| | 1455/1796 [09:22<02:23, 2.38it/s]
 1/1 [=====] - 0s 277ms/step
 81%| | 1456/1796 [09:23<02:19, 2.43it/s]
 1/1 [=====] - 0s 271ms/step
 81%| | 1457/1796 [09:23<02:17, 2.47it/s]
 1/1 [=====] - 0s 274ms/step

```

81%|      | 1458/1796 [09:23<02:14, 2.52it/s]
1/1 [=====] - 0s 264ms/step
81%|      | 1459/1796 [09:24<02:11, 2.57it/s]
1/1 [=====] - 0s 331ms/step
81%|      | 1460/1796 [09:24<02:17, 2.44it/s]
1/1 [=====] - 0s 265ms/step
81%|      | 1461/1796 [09:25<02:12, 2.53it/s]
1/1 [=====] - 0s 284ms/step
81%|      | 1462/1796 [09:25<02:11, 2.54it/s]
1/1 [=====] - 0s 269ms/step
81%|      | 1463/1796 [09:25<02:08, 2.59it/s]
1/1 [=====] - 0s 266ms/step
82%|      | 1464/1796 [09:26<02:06, 2.63it/s]
1/1 [=====] - 0s 287ms/step
82%|      | 1465/1796 [09:26<02:10, 2.53it/s]
1/1 [=====] - 0s 262ms/step
82%|      | 1466/1796 [09:27<02:12, 2.49it/s]
1/1 [=====] - 0s 271ms/step
82%|      | 1467/1796 [09:27<02:09, 2.54it/s]
1/1 [=====] - 0s 282ms/step
82%|      | 1468/1796 [09:27<02:09, 2.53it/s]
1/1 [=====] - 0s 266ms/step
82%|      | 1469/1796 [09:28<02:06, 2.58it/s]
1/1 [=====] - 0s 313ms/step
82%|      | 1470/1796 [09:28<02:09, 2.52it/s]
1/1 [=====] - 0s 285ms/step
82%|      | 1471/1796 [09:29<02:11, 2.47it/s]
1/1 [=====] - 0s 265ms/step
82%|      | 1472/1796 [09:29<02:07, 2.54it/s]
1/1 [=====] - 0s 272ms/step
82%|      | 1473/1796 [09:29<02:05, 2.57it/s]
1/1 [=====] - 0s 277ms/step

```



```

82%|      | 1474/1796 [09:30<02:08, 2.51it/s]
1/1 [=====] - 0s 267ms/step
82%|      | 1475/1796 [09:30<02:11, 2.45it/s]
1/1 [=====] - 0s 280ms/step
82%|      | 1476/1796 [09:30<02:09, 2.48it/s]
1/1 [=====] - 0s 266ms/step
82%|      | 1477/1796 [09:31<02:09, 2.47it/s]
1/1 [=====] - 0s 270ms/step
82%|      | 1478/1796 [09:31<02:05, 2.54it/s]
1/1 [=====] - 0s 344ms/step
82%|      | 1479/1796 [09:32<02:10, 2.43it/s]
1/1 [=====] - 0s 274ms/step
82%|      | 1480/1796 [09:32<02:07, 2.48it/s]
1/1 [=====] - 0s 262ms/step
82%|      | 1481/1796 [09:32<02:03, 2.56it/s]
1/1 [=====] - 0s 290ms/step
83%|      | 1482/1796 [09:33<02:02, 2.56it/s]
1/1 [=====] - 0s 263ms/step
83%|      | 1483/1796 [09:33<02:00, 2.60it/s]
1/1 [=====] - 0s 266ms/step
83%|      | 1484/1796 [09:34<01:58, 2.64it/s]
1/1 [=====] - 0s 278ms/step
83%|      | 1485/1796 [09:34<02:02, 2.55it/s]
1/1 [=====] - 0s 261ms/step
83%|      | 1486/1796 [09:34<01:59, 2.59it/s]
1/1 [=====] - 0s 265ms/step
83%|      | 1487/1796 [09:35<01:58, 2.62it/s]
1/1 [=====] - 0s 283ms/step
83%|      | 1488/1796 [09:35<01:59, 2.58it/s]
1/1 [=====] - 0s 262ms/step
83%|      | 1489/1796 [09:36<02:05, 2.44it/s]
1/1 [=====] - 0s 276ms/step

```

83%| | 1490/1796 [09:36<02:03, 2.48it/s]
 1/1 [=====] - 0s 271ms/step
 83%| | 1491/1796 [09:36<02:01, 2.51it/s]
 1/1 [=====] - 0s 261ms/step
 83%| | 1492/1796 [09:37<01:58, 2.56it/s]
 1/1 [=====] - 0s 282ms/step
 83%| | 1493/1796 [09:37<01:58, 2.56it/s]
 1/1 [=====] - 0s 314ms/step
 83%| | 1494/1796 [09:38<02:02, 2.47it/s]
 1/1 [=====] - 0s 284ms/step
 83%| | 1495/1796 [09:38<02:04, 2.41it/s]
 1/1 [=====] - 0s 300ms/step
 83%| | 1496/1796 [09:38<02:07, 2.35it/s]
 1/1 [=====] - 0s 286ms/step
 83%| | 1497/1796 [09:39<02:08, 2.33it/s]
 1/1 [=====] - 0s 304ms/step
 83%| | 1498/1796 [09:39<02:10, 2.29it/s]
 1/1 [=====] - 0s 325ms/step
 83%| | 1499/1796 [09:40<02:16, 2.17it/s]
 1/1 [=====] - 0s 287ms/step
 84%| | 1500/1796 [09:40<02:19, 2.13it/s]
 1/1 [=====] - 0s 286ms/step
 84%| | 1501/1796 [09:41<02:19, 2.11it/s]
 1/1 [=====] - 0s 292ms/step
 84%| | 1502/1796 [09:41<02:16, 2.15it/s]
 1/1 [=====] - 0s 308ms/step
 84%| | 1503/1796 [09:42<02:16, 2.15it/s]
 1/1 [=====] - 0s 290ms/step
 84%| | 1504/1796 [09:42<02:13, 2.19it/s]
 1/1 [=====] - 0s 296ms/step
 84%| | 1505/1796 [09:43<02:12, 2.20it/s]
 1/1 [=====] - 0s 292ms/step

```

84%|      | 1506/1796 [09:43<02:11,  2.21it/s]
1/1 [=====] - 0s 293ms/step
84%|      | 1507/1796 [09:44<02:13,  2.17it/s]
1/1 [=====] - 0s 297ms/step
84%|      | 1508/1796 [09:44<02:07,  2.26it/s]
1/1 [=====] - 0s 273ms/step
84%|      | 1509/1796 [09:44<02:01,  2.36it/s]
1/1 [=====] - 0s 262ms/step
84%|      | 1510/1796 [09:45<01:56,  2.45it/s]
1/1 [=====] - 0s 287ms/step
84%|      | 1511/1796 [09:45<01:55,  2.46it/s]
1/1 [=====] - 0s 266ms/step
84%|      | 1512/1796 [09:46<01:52,  2.52it/s]
1/1 [=====] - 0s 289ms/step
84%|      | 1513/1796 [09:46<02:02,  2.31it/s]
1/1 [=====] - 0s 285ms/step
84%|      | 1514/1796 [09:46<02:02,  2.30it/s]
1/1 [=====] - 0s 308ms/step
84%|      | 1515/1796 [09:47<02:04,  2.26it/s]
1/1 [=====] - 0s 306ms/step
84%|      | 1516/1796 [09:47<02:05,  2.24it/s]
1/1 [=====] - 0s 298ms/step
84%|      | 1517/1796 [09:48<02:06,  2.21it/s]
1/1 [=====] - 0s 297ms/step
85%|      | 1518/1796 [09:48<02:07,  2.18it/s]
1/1 [=====] - 0s 293ms/step
85%|      | 1519/1796 [09:49<02:05,  2.20it/s]
1/1 [=====] - 0s 290ms/step
85%|      | 1520/1796 [09:49<02:04,  2.22it/s]
1/1 [=====] - 0s 314ms/step
85%|      | 1521/1796 [09:50<02:05,  2.20it/s]
1/1 [=====] - 0s 294ms/step

```

85%| | 1522/1796 [09:50<02:04, 2.21it/s]
 1/1 [=====] - 0s 326ms/step
 85%| | 1523/1796 [09:51<02:07, 2.14it/s]
 1/1 [=====] - 0s 288ms/step
 85%| | 1524/1796 [09:51<02:04, 2.18it/s]
 1/1 [=====] - 0s 283ms/step
 85%| | 1525/1796 [09:52<02:08, 2.11it/s]
 1/1 [=====] - 0s 269ms/step
 85%| | 1526/1796 [09:52<02:04, 2.17it/s]
 1/1 [=====] - 0s 275ms/step
 85%| | 1527/1796 [09:52<01:57, 2.30it/s]
 1/1 [=====] - 0s 282ms/step
 85%| | 1528/1796 [09:53<01:52, 2.38it/s]
 1/1 [=====] - 0s 297ms/step
 85%| | 1529/1796 [09:53<01:51, 2.39it/s]
 1/1 [=====] - 0s 271ms/step
 85%| | 1530/1796 [09:54<01:51, 2.38it/s]
 1/1 [=====] - 0s 313ms/step
 85%| | 1531/1796 [09:54<01:51, 2.37it/s]
 1/1 [=====] - 0s 287ms/step
 85%| | 1532/1796 [09:54<01:52, 2.34it/s]
 1/1 [=====] - 0s 285ms/step
 85%| | 1533/1796 [09:55<01:53, 2.31it/s]
 1/1 [=====] - 0s 287ms/step
 85%| | 1534/1796 [09:55<01:54, 2.29it/s]
 1/1 [=====] - 0s 290ms/step
 85%| | 1535/1796 [09:56<01:54, 2.27it/s]
 1/1 [=====] - 0s 371ms/step
 86%| | 1536/1796 [09:56<02:01, 2.14it/s]
 1/1 [=====] - 0s 286ms/step
 86%| | 1537/1796 [09:57<02:02, 2.12it/s]
 1/1 [=====] - 0s 308ms/step

```

86%|      | 1538/1796 [09:57<02:00, 2.13it/s]
1/1 [=====] - 0s 289ms/step
86%|      | 1539/1796 [09:58<01:58, 2.17it/s]
1/1 [=====] - 0s 286ms/step
86%|      | 1540/1796 [09:58<01:56, 2.20it/s]
1/1 [=====] - 0s 291ms/step
86%|      | 1541/1796 [09:59<01:55, 2.20it/s]
1/1 [=====] - 0s 291ms/step
86%|      | 1542/1796 [09:59<01:57, 2.15it/s]
1/1 [=====] - 0s 309ms/step
86%|      | 1543/1796 [10:00<01:57, 2.16it/s]
1/1 [=====] - 0s 278ms/step
86%|      | 1544/1796 [10:00<01:52, 2.25it/s]
1/1 [=====] - 0s 272ms/step
86%|      | 1545/1796 [10:00<01:46, 2.35it/s]
1/1 [=====] - 0s 289ms/step
86%|      | 1546/1796 [10:01<01:46, 2.35it/s]
1/1 [=====] - 0s 271ms/step
86%|      | 1547/1796 [10:01<01:42, 2.43it/s]
1/1 [=====] - 0s 287ms/step
86%|      | 1548/1796 [10:02<01:44, 2.37it/s]
1/1 [=====] - 0s 291ms/step
86%|      | 1549/1796 [10:02<01:44, 2.36it/s]
1/1 [=====] - 0s 284ms/step
86%|      | 1550/1796 [10:02<01:45, 2.34it/s]
1/1 [=====] - 0s 315ms/step
86%|      | 1551/1796 [10:03<01:47, 2.27it/s]
1/1 [=====] - 0s 284ms/step
86%|      | 1552/1796 [10:03<01:47, 2.27it/s]
1/1 [=====] - 0s 303ms/step
86%|      | 1553/1796 [10:04<01:51, 2.18it/s]
1/1 [=====] - 0s 291ms/step

```

87%| | 1554/1796 [10:04<01:50, 2.19it/s]
 1/1 [=====] - 0s 288ms/step
 87%| | 1555/1796 [10:05<01:48, 2.21it/s]
 1/1 [=====] - 0s 316ms/step
 87%| | 1556/1796 [10:05<01:54, 2.10it/s]
 1/1 [=====] - 0s 289ms/step
 87%| | 1557/1796 [10:06<01:51, 2.14it/s]
 1/1 [=====] - 0s 322ms/step
 87%| | 1558/1796 [10:06<01:51, 2.13it/s]
 1/1 [=====] - 0s 286ms/step
 87%| | 1559/1796 [10:07<01:49, 2.17it/s]
 1/1 [=====] - 0s 287ms/step
 87%| | 1560/1796 [10:07<01:47, 2.20it/s]
 1/1 [=====] - 0s 297ms/step
 87%| | 1561/1796 [10:08<01:49, 2.14it/s]
 1/1 [=====] - 0s 274ms/step
 87%| | 1562/1796 [10:08<01:47, 2.18it/s]
 1/1 [=====] - 0s 292ms/step
 87%| | 1563/1796 [10:08<01:42, 2.27it/s]
 1/1 [=====] - 0s 274ms/step
 87%| | 1564/1796 [10:09<01:38, 2.36it/s]
 1/1 [=====] - 0s 275ms/step
 87%| | 1565/1796 [10:09<01:34, 2.44it/s]
 1/1 [=====] - 0s 324ms/step
 87%| | 1566/1796 [10:10<01:37, 2.37it/s]
 1/1 [=====] - 0s 289ms/step
 87%| | 1567/1796 [10:10<01:37, 2.34it/s]
 1/1 [=====] - 0s 290ms/step
 87%| | 1568/1796 [10:11<01:38, 2.31it/s]
 1/1 [=====] - 0s 293ms/step
 87%| | 1569/1796 [10:11<01:40, 2.26it/s]
 1/1 [=====] - 0s 284ms/step

```

87%|      | 1570/1796 [10:11<01:39, 2.27it/s]
1/1 [=====] - 0s 311ms/step
87%|      | 1571/1796 [10:12<01:40, 2.23it/s]
1/1 [=====] - 0s 286ms/step
88%|      | 1572/1796 [10:12<01:39, 2.24it/s]
1/1 [=====] - 0s 307ms/step
88%|      | 1573/1796 [10:13<01:45, 2.11it/s]
1/1 [=====] - 0s 284ms/step
88%|      | 1574/1796 [10:13<01:42, 2.17it/s]
1/1 [=====] - 0s 289ms/step
88%|      | 1575/1796 [10:14<01:40, 2.19it/s]
1/1 [=====] - 0s 296ms/step
88%|      | 1576/1796 [10:14<01:40, 2.19it/s]
1/1 [=====] - 0s 285ms/step
88%|      | 1577/1796 [10:15<01:38, 2.22it/s]
1/1 [=====] - 0s 311ms/step
88%|      | 1578/1796 [10:15<01:39, 2.20it/s]
1/1 [=====] - 0s 289ms/step
88%|      | 1579/1796 [10:16<01:40, 2.17it/s]
1/1 [=====] - 0s 279ms/step
88%|      | 1580/1796 [10:16<01:37, 2.21it/s]
1/1 [=====] - 0s 276ms/step
88%|      | 1581/1796 [10:16<01:33, 2.29it/s]
1/1 [=====] - 0s 271ms/step
88%|      | 1582/1796 [10:17<01:30, 2.36it/s]
1/1 [=====] - 0s 285ms/step
88%|      | 1583/1796 [10:17<01:28, 2.42it/s]
1/1 [=====] - 0s 281ms/step
88%|      | 1584/1796 [10:18<01:30, 2.34it/s]
1/1 [=====] - 0s 285ms/step
88%|      | 1585/1796 [10:18<01:29, 2.35it/s]
1/1 [=====] - 0s 312ms/step

```

```

88%|      | 1586/1796 [10:19<01:31, 2.29it/s]
1/1 [=====] - 0s 287ms/step
88%|      | 1587/1796 [10:19<01:31, 2.28it/s]
1/1 [=====] - 0s 303ms/step
88%|      | 1588/1796 [10:19<01:32, 2.25it/s]
1/1 [=====] - 0s 289ms/step
88%|      | 1589/1796 [10:20<01:32, 2.24it/s]
1/1 [=====] - 0s 287ms/step
89%|      | 1590/1796 [10:20<01:31, 2.25it/s]
1/1 [=====] - 0s 318ms/step
89%|      | 1591/1796 [10:21<01:36, 2.13it/s]
1/1 [=====] - 0s 285ms/step
89%|      | 1592/1796 [10:21<01:34, 2.16it/s]
1/1 [=====] - 0s 311ms/step
89%|      | 1593/1796 [10:22<01:33, 2.16it/s]
1/1 [=====] - 0s 286ms/step
89%|      | 1594/1796 [10:22<01:32, 2.19it/s]
1/1 [=====] - 0s 297ms/step
89%|      | 1595/1796 [10:23<01:31, 2.19it/s]
1/1 [=====] - 0s 333ms/step
89%|      | 1596/1796 [10:23<01:36, 2.06it/s]
1/1 [=====] - 0s 308ms/step
89%|      | 1597/1796 [10:24<01:38, 2.03it/s]
1/1 [=====] - 0s 282ms/step
89%|      | 1598/1796 [10:24<01:34, 2.10it/s]
1/1 [=====] - 0s 282ms/step
89%|      | 1599/1796 [10:25<01:30, 2.17it/s]
1/1 [=====] - 0s 290ms/step
89%|      | 1600/1796 [10:25<01:26, 2.26it/s]
1/1 [=====] - 0s 281ms/step
89%|      | 1601/1796 [10:25<01:23, 2.34it/s]
1/1 [=====] - 0s 281ms/step

```



```

89%|      | 1602/1796 [10:26<01:21,  2.38it/s]
1/1 [=====] - 0s 308ms/step
89%|      | 1603/1796 [10:26<01:21,  2.38it/s]
1/1 [=====] - 0s 291ms/step
89%|      | 1604/1796 [10:27<01:22,  2.33it/s]
1/1 [=====] - 0s 299ms/step
89%|      | 1605/1796 [10:27<01:24,  2.26it/s]
1/1 [=====] - 0s 295ms/step
89%|      | 1606/1796 [10:28<01:26,  2.19it/s]
1/1 [=====] - 0s 294ms/step
89%|      | 1607/1796 [10:28<01:26,  2.19it/s]
1/1 [=====] - 0s 291ms/step
90%|      | 1608/1796 [10:29<01:25,  2.21it/s]
1/1 [=====] - 0s 288ms/step
90%|      | 1609/1796 [10:29<01:26,  2.16it/s]
1/1 [=====] - 0s 318ms/step
90%|      | 1610/1796 [10:30<01:26,  2.15it/s]
1/1 [=====] - 0s 286ms/step
90%|      | 1611/1796 [10:30<01:24,  2.18it/s]
1/1 [=====] - 0s 288ms/step
90%|      | 1612/1796 [10:30<01:25,  2.16it/s]
1/1 [=====] - 0s 293ms/step
90%|      | 1613/1796 [10:31<01:24,  2.18it/s]
1/1 [=====] - 0s 312ms/step
90%|      | 1614/1796 [10:31<01:24,  2.16it/s]
1/1 [=====] - 0s 309ms/step
90%|      | 1615/1796 [10:32<01:24,  2.15it/s]
1/1 [=====] - 0s 288ms/step
90%|      | 1616/1796 [10:32<01:22,  2.19it/s]
1/1 [=====] - 0s 265ms/step
90%|      | 1617/1796 [10:33<01:17,  2.31it/s]
1/1 [=====] - 0s 271ms/step

```

```

90%|      | 1618/1796 [10:33<01:18,  2.27it/s]
1/1 [=====] - 0s 274ms/step
90%|      | 1619/1796 [10:33<01:14,  2.38it/s]
1/1 [=====] - 0s 282ms/step
90%|      | 1620/1796 [10:34<01:12,  2.43it/s]
1/1 [=====] - 0s 286ms/step
90%|      | 1621/1796 [10:34<01:13,  2.40it/s]
1/1 [=====] - 0s 325ms/step
90%|      | 1622/1796 [10:35<01:16,  2.28it/s]
1/1 [=====] - 0s 310ms/step
90%|      | 1623/1796 [10:35<01:20,  2.15it/s]
1/1 [=====] - 0s 291ms/step
90%|      | 1624/1796 [10:36<01:19,  2.17it/s]
1/1 [=====] - 0s 331ms/step
90%|      | 1625/1796 [10:36<01:19,  2.14it/s]
1/1 [=====] - 0s 302ms/step
91%|      | 1626/1796 [10:37<01:19,  2.14it/s]
1/1 [=====] - 0s 322ms/step
91%|      | 1627/1796 [10:37<01:19,  2.12it/s]
1/1 [=====] - 0s 286ms/step
91%|      | 1628/1796 [10:38<01:19,  2.10it/s]
1/1 [=====] - 0s 286ms/step
91%|      | 1629/1796 [10:38<01:17,  2.14it/s]
1/1 [=====] - 0s 293ms/step
91%|      | 1630/1796 [10:39<01:17,  2.15it/s]
1/1 [=====] - 0s 289ms/step
91%|      | 1631/1796 [10:39<01:15,  2.17it/s]
1/1 [=====] - 0s 316ms/step
91%|      | 1632/1796 [10:40<01:16,  2.15it/s]
1/1 [=====] - 0s 286ms/step
91%|      | 1633/1796 [10:40<01:16,  2.12it/s]
1/1 [=====] - 0s 288ms/step

```

```

91%|      | 1634/1796 [10:40<01:16,  2.11it/s]
1/1 [=====] - 0s 270ms/step
91%|      | 1635/1796 [10:41<01:12,  2.22it/s]
1/1 [=====] - 0s 270ms/step
91%|      | 1636/1796 [10:41<01:08,  2.32it/s]
1/1 [=====] - 0s 305ms/step
91%|      | 1637/1796 [10:42<01:07,  2.35it/s]
1/1 [=====] - 0s 272ms/step
91%|      | 1638/1796 [10:42<01:05,  2.42it/s]
1/1 [=====] - 0s 286ms/step
91%|      | 1639/1796 [10:42<01:04,  2.45it/s]
1/1 [=====] - 0s 299ms/step
91%|      | 1640/1796 [10:43<01:07,  2.30it/s]
1/1 [=====] - 0s 286ms/step
91%|      | 1641/1796 [10:43<01:07,  2.29it/s]
1/1 [=====] - 0s 304ms/step
91%|      | 1642/1796 [10:44<01:08,  2.24it/s]
1/1 [=====] - 0s 294ms/step
91%|      | 1643/1796 [10:44<01:08,  2.24it/s]
1/1 [=====] - 0s 290ms/step
92%|      | 1644/1796 [10:45<01:10,  2.16it/s]
1/1 [=====] - 0s 312ms/step
92%|      | 1645/1796 [10:45<01:12,  2.09it/s]
1/1 [=====] - 0s 295ms/step
92%|      | 1646/1796 [10:46<01:10,  2.13it/s]
1/1 [=====] - 0s 307ms/step
92%|      | 1647/1796 [10:46<01:09,  2.14it/s]
1/1 [=====] - 0s 291ms/step
92%|      | 1648/1796 [10:47<01:08,  2.18it/s]
1/1 [=====] - 0s 299ms/step
92%|      | 1649/1796 [10:47<01:07,  2.19it/s]
1/1 [=====] - 0s 286ms/step

```

```

92%|      | 1650/1796 [10:48<01:07, 2.15it/s]
1/1 [=====] - 0s 299ms/step
92%|      | 1651/1796 [10:48<01:07, 2.16it/s]
1/1 [=====] - 0s 317ms/step
92%|      | 1652/1796 [10:49<01:06, 2.15it/s]
1/1 [=====] - 0s 266ms/step
92%|      | 1653/1796 [10:49<01:02, 2.27it/s]
1/1 [=====] - 0s 278ms/step
92%|      | 1654/1796 [10:49<01:00, 2.36it/s]
1/1 [=====] - 0s 280ms/step
92%|      | 1655/1796 [10:50<00:59, 2.39it/s]
1/1 [=====] - 0s 276ms/step
92%|      | 1656/1796 [10:50<00:59, 2.37it/s]
1/1 [=====] - 0s 270ms/step
92%|      | 1657/1796 [10:51<00:58, 2.39it/s]
1/1 [=====] - 0s 292ms/step
92%|      | 1658/1796 [10:51<00:58, 2.34it/s]
1/1 [=====] - 0s 294ms/step
92%|      | 1659/1796 [10:51<00:59, 2.31it/s]
1/1 [=====] - 0s 314ms/step
92%|      | 1660/1796 [10:52<01:01, 2.21it/s]
1/1 [=====] - 0s 288ms/step
92%|      | 1661/1796 [10:52<01:01, 2.21it/s]
1/1 [=====] - 0s 304ms/step
93%|      | 1662/1796 [10:53<01:00, 2.20it/s]
1/1 [=====] - 0s 291ms/step
93%|      | 1663/1796 [10:53<01:00, 2.20it/s]
1/1 [=====] - 0s 294ms/step
93%|      | 1664/1796 [10:54<00:59, 2.21it/s]
1/1 [=====] - 0s 302ms/step
93%|      | 1665/1796 [10:54<00:59, 2.19it/s]
1/1 [=====] - 0s 293ms/step

```

```

93%|      | 1666/1796 [10:55<01:00, 2.15it/s]
1/1 [=====] - 0s 321ms/step
93%|      | 1667/1796 [10:55<01:00, 2.14it/s]
1/1 [=====] - 0s 290ms/step
93%|      | 1668/1796 [10:56<00:59, 2.17it/s]
1/1 [=====] - 0s 291ms/step
93%|      | 1669/1796 [10:56<00:59, 2.14it/s]
1/1 [=====] - 0s 281ms/step
93%|      | 1670/1796 [10:57<00:58, 2.14it/s]
1/1 [=====] - 0s 279ms/step
93%|      | 1671/1796 [10:57<00:55, 2.25it/s]
1/1 [=====] - 0s 297ms/step
93%|      | 1672/1796 [10:57<00:53, 2.32it/s]
1/1 [=====] - 0s 272ms/step
93%|      | 1673/1796 [10:58<00:51, 2.40it/s]
1/1 [=====] - 0s 279ms/step
93%|      | 1674/1796 [10:58<00:50, 2.44it/s]
1/1 [=====] - 0s 296ms/step
93%|      | 1675/1796 [10:59<00:49, 2.45it/s]
1/1 [=====] - 0s 279ms/step
93%|      | 1676/1796 [10:59<00:49, 2.41it/s]
1/1 [=====] - 0s 300ms/step
93%|      | 1677/1796 [10:59<00:50, 2.35it/s]
1/1 [=====] - 0s 291ms/step
93%|      | 1678/1796 [11:00<00:51, 2.31it/s]
1/1 [=====] - 0s 291ms/step
93%|      | 1679/1796 [11:00<00:51, 2.25it/s]
1/1 [=====] - 0s 307ms/step
94%|      | 1680/1796 [11:01<00:52, 2.22it/s]
1/1 [=====] - 0s 286ms/step
94%|      | 1681/1796 [11:01<00:52, 2.18it/s]
1/1 [=====] - 0s 310ms/step

```

```

94%|      | 1682/1796 [11:02<00:52, 2.17it/s]
1/1 [=====] - 0s 300ms/step
94%|      | 1683/1796 [11:02<00:52, 2.17it/s]
1/1 [=====] - 0s 291ms/step
94%|      | 1684/1796 [11:03<00:51, 2.19it/s]
1/1 [=====] - 0s 290ms/step
94%|      | 1685/1796 [11:03<00:52, 2.12it/s]
1/1 [=====] - 0s 290ms/step
94%|      | 1686/1796 [11:04<00:51, 2.15it/s]
1/1 [=====] - 0s 323ms/step
94%|      | 1687/1796 [11:04<00:51, 2.14it/s]
1/1 [=====] - 0s 287ms/step
94%|      | 1688/1796 [11:05<00:49, 2.17it/s]
1/1 [=====] - 0s 283ms/step
94%|      | 1689/1796 [11:05<00:47, 2.23it/s]
1/1 [=====] - 0s 281ms/step
94%|      | 1690/1796 [11:05<00:47, 2.25it/s]
1/1 [=====] - 0s 267ms/step
94%|      | 1691/1796 [11:06<00:44, 2.35it/s]
1/1 [=====] - 0s 299ms/step
94%|      | 1692/1796 [11:06<00:43, 2.38it/s]
1/1 [=====] - 0s 286ms/step
94%|      | 1693/1796 [11:07<00:43, 2.38it/s]
1/1 [=====] - 0s 288ms/step
94%|      | 1694/1796 [11:07<00:43, 2.34it/s]
1/1 [=====] - 0s 289ms/step
94%|      | 1695/1796 [11:08<00:43, 2.30it/s]
1/1 [=====] - 0s 297ms/step
94%|      | 1696/1796 [11:08<00:45, 2.22it/s]
1/1 [=====] - 0s 309ms/step
94%|      | 1697/1796 [11:08<00:45, 2.20it/s]
1/1 [=====] - 0s 289ms/step

```

```

95%|      | 1698/1796 [11:09<00:44, 2.21it/s]
1/1 [=====] - 0s 287ms/step
95%|      | 1699/1796 [11:09<00:43, 2.23it/s]
1/1 [=====] - 0s 310ms/step
95%|      | 1700/1796 [11:10<00:43, 2.20it/s]
1/1 [=====] - 0s 288ms/step
95%|      | 1701/1796 [11:10<00:43, 2.21it/s]
1/1 [=====] - 0s 298ms/step
95%|      | 1702/1796 [11:11<00:43, 2.17it/s]
1/1 [=====] - 0s 295ms/step
95%|      | 1703/1796 [11:11<00:42, 2.19it/s]
1/1 [=====] - 0s 311ms/step
95%|      | 1704/1796 [11:12<00:42, 2.18it/s]
1/1 [=====] - 0s 283ms/step
95%|      | 1705/1796 [11:12<00:42, 2.16it/s]
1/1 [=====] - 0s 307ms/step
95%|      | 1706/1796 [11:13<00:41, 2.16it/s]
1/1 [=====] - 0s 277ms/step
95%|      | 1707/1796 [11:13<00:39, 2.23it/s]
1/1 [=====] - 0s 271ms/step
95%|      | 1708/1796 [11:13<00:38, 2.28it/s]
1/1 [=====] - 0s 283ms/step
95%|      | 1709/1796 [11:14<00:36, 2.35it/s]
1/1 [=====] - 0s 273ms/step
95%|      | 1710/1796 [11:14<00:35, 2.41it/s]
1/1 [=====] - 0s 277ms/step
95%|      | 1711/1796 [11:15<00:36, 2.35it/s]
1/1 [=====] - 0s 316ms/step
95%|      | 1712/1796 [11:15<00:36, 2.28it/s]
1/1 [=====] - 0s 293ms/step
95%|      | 1713/1796 [11:16<00:36, 2.26it/s]
1/1 [=====] - 0s 289ms/step

```

```

95%|      | 1714/1796 [11:16<00:36, 2.26it/s]
1/1 [=====] - 0s 287ms/step
95%|      | 1715/1796 [11:16<00:35, 2.25it/s]
1/1 [=====] - 0s 332ms/step
96%|      | 1716/1796 [11:17<00:36, 2.18it/s]
1/1 [=====] - 0s 287ms/step
96%|      | 1717/1796 [11:17<00:37, 2.13it/s]
1/1 [=====] - 0s 300ms/step
96%|      | 1718/1796 [11:18<00:36, 2.14it/s]
1/1 [=====] - 0s 316ms/step
96%|      | 1719/1796 [11:18<00:36, 2.13it/s]
1/1 [=====] - 0s 288ms/step
96%|      | 1720/1796 [11:19<00:35, 2.17it/s]
1/1 [=====] - 0s 284ms/step
96%|      | 1721/1796 [11:19<00:34, 2.19it/s]
1/1 [=====] - 0s 286ms/step
96%|      | 1722/1796 [11:20<00:34, 2.15it/s]
1/1 [=====] - 0s 286ms/step
96%|      | 1723/1796 [11:20<00:33, 2.18it/s]
1/1 [=====] - 0s 310ms/step
96%|      | 1724/1796 [11:21<00:33, 2.18it/s]
1/1 [=====] - 0s 276ms/step
96%|      | 1725/1796 [11:21<00:31, 2.24it/s]
1/1 [=====] - 0s 272ms/step
96%|      | 1726/1796 [11:21<00:29, 2.34it/s]
1/1 [=====] - 0s 284ms/step
96%|      | 1727/1796 [11:22<00:30, 2.29it/s]
1/1 [=====] - 0s 264ms/step
96%|      | 1728/1796 [11:22<00:28, 2.39it/s]
1/1 [=====] - 0s 288ms/step
96%|      | 1729/1796 [11:23<00:28, 2.37it/s]
1/1 [=====] - 0s 300ms/step

```



```

96%|      | 1730/1796 [11:23<00:28, 2.30it/s]
1/1 [=====] - 0s 292ms/step
96%|      | 1731/1796 [11:24<00:28, 2.28it/s]
1/1 [=====] - 0s 327ms/step
96%|      | 1732/1796 [11:24<00:29, 2.19it/s]
1/1 [=====] - 0s 317ms/step
96%|      | 1733/1796 [11:25<00:30, 2.09it/s]
1/1 [=====] - 0s 316ms/step
97%|      | 1734/1796 [11:25<00:29, 2.10it/s]
1/1 [=====] - 0s 297ms/step
97%|      | 1735/1796 [11:26<00:28, 2.14it/s]
1/1 [=====] - 0s 324ms/step
97%|      | 1736/1796 [11:26<00:28, 2.12it/s]
1/1 [=====] - 0s 288ms/step
97%|      | 1737/1796 [11:27<00:27, 2.16it/s]
1/1 [=====] - 0s 288ms/step
97%|      | 1738/1796 [11:27<00:26, 2.19it/s]
1/1 [=====] - 0s 291ms/step
97%|      | 1739/1796 [11:27<00:26, 2.14it/s]
1/1 [=====] - 0s 288ms/step
97%|      | 1740/1796 [11:28<00:25, 2.17it/s]
1/1 [=====] - 0s 310ms/step
97%|      | 1741/1796 [11:28<00:25, 2.12it/s]
1/1 [=====] - 0s 287ms/step
97%|      | 1742/1796 [11:29<00:25, 2.16it/s]
1/1 [=====] - 0s 272ms/step
97%|      | 1743/1796 [11:29<00:23, 2.26it/s]
1/1 [=====] - 0s 273ms/step
97%|      | 1744/1796 [11:30<00:22, 2.33it/s]
1/1 [=====] - 0s 284ms/step
97%|      | 1745/1796 [11:30<00:21, 2.33it/s]
1/1 [=====] - 0s 287ms/step

```

```

97%|      | 1746/1796 [11:30<00:21, 2.38it/s]
1/1 [=====] - 0s 270ms/step
97%|      | 1747/1796 [11:31<00:19, 2.45it/s]
1/1 [=====] - 0s 289ms/step
97%|      | 1748/1796 [11:31<00:19, 2.45it/s]
1/1 [=====] - 0s 310ms/step
97%|      | 1749/1796 [11:32<00:20, 2.34it/s]
1/1 [=====] - 0s 304ms/step
97%|      | 1750/1796 [11:32<00:20, 2.24it/s]
1/1 [=====] - 0s 297ms/step
97%|      | 1751/1796 [11:33<00:20, 2.24it/s]
1/1 [=====] - 0s 315ms/step
98%|      | 1752/1796 [11:33<00:20, 2.19it/s]
1/1 [=====] - 0s 288ms/step
98%|      | 1753/1796 [11:34<00:20, 2.15it/s]
1/1 [=====] - 0s 296ms/step
98%|      | 1754/1796 [11:34<00:19, 2.16it/s]
1/1 [=====] - 0s 290ms/step
98%|      | 1755/1796 [11:35<00:18, 2.19it/s]
1/1 [=====] - 0s 318ms/step
98%|      | 1756/1796 [11:35<00:18, 2.13it/s]
1/1 [=====] - 0s 293ms/step
98%|      | 1757/1796 [11:35<00:18, 2.16it/s]
1/1 [=====] - 0s 287ms/step
98%|      | 1758/1796 [11:36<00:17, 2.18it/s]
1/1 [=====] - 0s 290ms/step
98%|      | 1759/1796 [11:36<00:16, 2.19it/s]
1/1 [=====] - 0s 294ms/step
98%|      | 1760/1796 [11:37<00:16, 2.20it/s]
1/1 [=====] - 0s 305ms/step
98%|      | 1761/1796 [11:37<00:15, 2.19it/s]
1/1 [=====] - 0s 271ms/step

```

```

98%|      | 1762/1796 [11:38<00:15, 2.23it/s]
1/1 [=====] - 0s 276ms/step
98%|      | 1763/1796 [11:38<00:14, 2.34it/s]
1/1 [=====] - 0s 272ms/step
98%|      | 1764/1796 [11:38<00:13, 2.38it/s]
1/1 [=====] - 0s 270ms/step
98%|      | 1765/1796 [11:39<00:13, 2.37it/s]
1/1 [=====] - 0s 309ms/step
98%|      | 1766/1796 [11:39<00:12, 2.37it/s]
1/1 [=====] - 0s 292ms/step
98%|      | 1767/1796 [11:40<00:12, 2.32it/s]
1/1 [=====] - 0s 290ms/step
98%|      | 1768/1796 [11:40<00:12, 2.24it/s]
1/1 [=====] - 0s 292ms/step
98%|      | 1769/1796 [11:41<00:12, 2.23it/s]
1/1 [=====] - 0s 298ms/step
99%|      | 1770/1796 [11:41<00:11, 2.23it/s]
1/1 [=====] - 0s 317ms/step
99%|      | 1771/1796 [11:42<00:11, 2.19it/s]
1/1 [=====] - 0s 307ms/step
99%|      | 1772/1796 [11:42<00:11, 2.10it/s]
1/1 [=====] - 0s 314ms/step
99%|      | 1773/1796 [11:43<00:10, 2.10it/s]
1/1 [=====] - 0s 313ms/step
99%|      | 1774/1796 [11:43<00:10, 2.12it/s]
1/1 [=====] - 0s 302ms/step
99%|      | 1775/1796 [11:44<00:09, 2.13it/s]
1/1 [=====] - 0s 294ms/step
99%|      | 1776/1796 [11:44<00:09, 2.15it/s]
1/1 [=====] - 0s 282ms/step
99%|      | 1777/1796 [11:44<00:08, 2.14it/s]
1/1 [=====] - 0s 314ms/step

```

```

99%|      | 1778/1796 [11:45<00:08, 2.09it/s]
1/1 [=====] - 0s 287ms/step
99%|      | 1779/1796 [11:45<00:07, 2.14it/s]
1/1 [=====] - 0s 275ms/step
99%|      | 1780/1796 [11:46<00:07, 2.26it/s]
1/1 [=====] - 0s 282ms/step
99%|      | 1781/1796 [11:46<00:06, 2.32it/s]
1/1 [=====] - 0s 269ms/step
99%|      | 1782/1796 [11:47<00:05, 2.40it/s]
1/1 [=====] - 0s 324ms/step
99%|      | 1783/1796 [11:47<00:05, 2.33it/s]
1/1 [=====] - 0s 285ms/step
99%|      | 1784/1796 [11:47<00:05, 2.39it/s]
1/1 [=====] - 0s 290ms/step
99%|      | 1785/1796 [11:48<00:04, 2.34it/s]
1/1 [=====] - 0s 298ms/step
99%|      | 1786/1796 [11:48<00:04, 2.29it/s]
1/1 [=====] - 0s 287ms/step
99%|      | 1787/1796 [11:49<00:03, 2.29it/s]
1/1 [=====] - 0s 380ms/step
100%|     | 1788/1796 [11:49<00:03, 2.13it/s]
1/1 [=====] - 0s 315ms/step
100%|     | 1789/1796 [11:50<00:03, 2.08it/s]
1/1 [=====] - 0s 316ms/step
100%|     | 1790/1796 [11:50<00:02, 2.09it/s]
1/1 [=====] - 0s 297ms/step
100%|     | 1791/1796 [11:51<00:02, 2.12it/s]
1/1 [=====] - 0s 293ms/step
100%|     | 1792/1796 [11:51<00:01, 2.15it/s]
1/1 [=====] - 0s 345ms/step
100%|     | 1793/1796 [11:52<00:01, 2.11it/s]
1/1 [=====] - 0s 323ms/step

```

```

100%|      | 1794/1796 [11:52<00:00, 2.04it/s]
1/1 [=====] - 0s 342ms/step
100%|      | 1795/1796 [11:53<00:00, 2.02it/s]
1/1 [=====] - 0s 204ms/step
100%|      | 1796/1796 [11:53<00:00, 2.25it/s]
1/1 [=====] - 0s 300ms/step
1797it [11:54, 2.25it/s]
1/1 [=====] - 0s 302ms/step
1798it [11:54, 2.28it/s]
1/1 [=====] - 0s 278ms/step
1799it [11:54, 2.31it/s]
1/1 [=====] - 0s 286ms/step
1800it [11:55, 2.38it/s]
1/1 [=====] - 0s 274ms/step
1801it [11:55, 2.36it/s]
1/1 [=====] - 0s 271ms/step
1802it [11:56, 2.43it/s]
1/1 [=====] - 0s 302ms/step
1803it [11:56, 2.44it/s]
1/1 [=====] - 0s 278ms/step
1804it [11:56, 2.51it/s]
1/1 [=====] - 0s 264ms/step
1805it [11:57, 2.47it/s]
1/1 [=====] - 0s 293ms/step
1806it [11:57, 2.49it/s]
1/1 [=====] - 0s 280ms/step
1807it [11:58, 2.54it/s]
1/1 [=====] - 0s 281ms/step
1808it [11:58, 2.57it/s]
1/1 [=====] - 0s 331ms/step
1809it [11:58, 2.44it/s]
1/1 [=====] - 0s 280ms/step

```

1810it [11:59, 2.47it/s]
 1/1 [=====] - 0s 270ms/step
 1811it [11:59, 2.53it/s]
 1/1 [=====] - 0s 282ms/step
 1812it [12:00, 2.48it/s]
 1/1 [=====] - 0s 266ms/step
 1813it [12:00, 2.47it/s]
 1/1 [=====] - 0s 287ms/step
 1814it [12:00, 2.50it/s]
 1/1 [=====] - 0s 267ms/step
 1815it [12:01, 2.46it/s]
 1/1 [=====] - 0s 277ms/step
 1816it [12:01, 2.50it/s]
 1/1 [=====] - 0s 288ms/step
 1817it [12:02, 2.53it/s]
 1/1 [=====] - 0s 269ms/step
 1818it [12:02, 2.57it/s]
 1/1 [=====] - 0s 276ms/step
 1819it [12:02, 2.58it/s]
 1/1 [=====] - 0s 282ms/step
 1820it [12:03, 2.49it/s]
 1/1 [=====] - 0s 271ms/step
 1821it [12:03, 2.55it/s]
 1/1 [=====] - 0s 271ms/step
 1822it [12:04, 2.59it/s]
 1/1 [=====] - 0s 299ms/step
 1823it [12:04, 2.57it/s]
 1/1 [=====] - 0s 324ms/step
 1824it [12:04, 2.46it/s]
 1/1 [=====] - 0s 263ms/step
 1825it [12:05, 2.49it/s]
 1/1 [=====] - 0s 275ms/step

1826it [12:05, 2.52it/s]
 1/1 [=====] - 0s 269ms/step
 1827it [12:05, 2.57it/s]
 1/1 [=====] - 0s 295ms/step
 1828it [12:06, 2.45it/s]
 1/1 [=====] - 0s 269ms/step
 1829it [12:06, 2.53it/s]
 1/1 [=====] - 0s 285ms/step
 1830it [12:07, 2.56it/s]
 1/1 [=====] - 0s 309ms/step
 1831it [12:07, 2.53it/s]
 1/1 [=====] - 0s 265ms/step
 1832it [12:07, 2.56it/s]
 1/1 [=====] - 0s 274ms/step
 1833it [12:08, 2.59it/s]
 1/1 [=====] - 0s 294ms/step
 1834it [12:08, 2.47it/s]
 1/1 [=====] - 0s 280ms/step
 1835it [12:09, 2.50it/s]
 1/1 [=====] - 0s 276ms/step
 1836it [12:09, 2.53it/s]
 1/1 [=====] - 0s 277ms/step
 1837it [12:09, 2.51it/s]
 1/1 [=====] - 0s 276ms/step
 1838it [12:10, 2.56it/s]
 1/1 [=====] - 0s 266ms/step
 1839it [12:10, 2.60it/s]
 1/1 [=====] - 0s 274ms/step
 1840it [12:11, 2.51it/s]
 1/1 [=====] - 0s 278ms/step
 1841it [12:11, 2.54it/s]
 1/1 [=====] - 0s 265ms/step

1842it [12:11, 2.60it/s]
 1/1 [=====] - 0s 270ms/step
 1843it [12:12, 2.59it/s]
 1/1 [=====] - 0s 269ms/step
 1844it [12:12, 2.53it/s]
 1/1 [=====] - 0s 293ms/step
 1845it [12:13, 2.52it/s]
 1/1 [=====] - 0s 275ms/step
 1846it [12:13, 2.53it/s]
 1/1 [=====] - 0s 280ms/step
 1847it [12:13, 2.52it/s]
 1/1 [=====] - 0s 308ms/step
 1848it [12:14, 2.47it/s]
 1/1 [=====] - 0s 298ms/step
 1849it [12:14, 2.34it/s]
 1/1 [=====] - 0s 315ms/step
 1850it [12:15, 2.32it/s]
 1/1 [=====] - 0s 297ms/step
 1851it [12:15, 2.26it/s]
 1/1 [=====] - 0s 292ms/step
 1852it [12:16, 2.25it/s]
 1/1 [=====] - 0s 306ms/step
 1853it [12:16, 2.22it/s]
 1/1 [=====] - 0s 330ms/step
 1854it [12:17, 2.11it/s]
 1/1 [=====] - 0s 319ms/step
 1855it [12:17, 2.10it/s]
 1/1 [=====] - 0s 294ms/step
 1856it [12:18, 2.14it/s]
 1/1 [=====] - 0s 296ms/step
 1857it [12:18, 2.16it/s]
 1/1 [=====] - 0s 311ms/step

1858it [12:19, 2.13it/s]
 1/1 [=====] - 0s 287ms/step
 1859it [12:19, 2.18it/s]
 1/1 [=====] - 0s 321ms/step
 1860it [12:19, 2.16it/s]
 1/1 [=====] - 0s 289ms/step
 1861it [12:20, 2.14it/s]
 1/1 [=====] - 0s 298ms/step
 1862it [12:20, 2.17it/s]
 1/1 [=====] - 0s 299ms/step
 1863it [12:21, 2.18it/s]
 1/1 [=====] - 0s 288ms/step
 1864it [12:21, 2.21it/s]
 1/1 [=====] - 0s 310ms/step
 1865it [12:22, 2.19it/s]
 1/1 [=====] - 0s 285ms/step
 1866it [12:22, 2.21it/s]
 1/1 [=====] - 0s 277ms/step
 1867it [12:23, 2.33it/s]
 1/1 [=====] - 0s 302ms/step
 1868it [12:23, 2.37it/s]
 1/1 [=====] - 0s 272ms/step
 1869it [12:23, 2.38it/s]
 1/1 [=====] - 0s 288ms/step
 1870it [12:24, 2.41it/s]
 1/1 [=====] - 0s 286ms/step
 1871it [12:24, 2.43it/s]
 1/1 [=====] - 0s 291ms/step
 1872it [12:25, 2.44it/s]
 1/1 [=====] - 0s 276ms/step
 1873it [12:25, 2.44it/s]
 1/1 [=====] - 0s 319ms/step

1874it [12:25, 2.41it/s]
 1/1 [=====] - 0s 301ms/step
 1875it [12:26, 2.31it/s]
 1/1 [=====] - 0s 290ms/step
 1876it [12:26, 2.36it/s]
 1/1 [=====] - 0s 269ms/step
 1877it [12:27, 2.45it/s]
 1/1 [=====] - 0s 286ms/step
 1878it [12:27, 2.47it/s]
 1/1 [=====] - 0s 316ms/step
 1879it [12:27, 2.45it/s]
 1/1 [=====] - 0s 269ms/step
 1880it [12:28, 2.52it/s]
 1/1 [=====] - 0s 290ms/step
 1881it [12:28, 2.52it/s]
 1/1 [=====] - 0s 273ms/step
 1882it [12:29, 2.53it/s]
 1/1 [=====] - 0s 272ms/step
 1883it [12:29, 2.48it/s]
 1/1 [=====] - 0s 281ms/step
 1884it [12:29, 2.50it/s]
 1/1 [=====] - 0s 264ms/step
 1885it [12:30, 2.49it/s]
 1/1 [=====] - 0s 286ms/step
 1886it [12:30, 2.50it/s]
 1/1 [=====] - 0s 285ms/step
 1887it [12:31, 2.53it/s]
 1/1 [=====] - 0s 270ms/step
 1888it [12:31, 2.56it/s]
 1/1 [=====] - 0s 295ms/step
 1889it [12:31, 2.45it/s]
 1/1 [=====] - 0s 268ms/step

1890it [12:32, 2.46it/s]
 1/1 [=====] - 0s 300ms/step
 1891it [12:32, 2.48it/s]
 1/1 [=====] - 0s 273ms/step
 1892it [12:33, 2.54it/s]
 1/1 [=====] - 0s 272ms/step
 1893it [12:33, 2.57it/s]
 1/1 [=====] - 0s 273ms/step
 1894it [12:33, 2.57it/s]
 1/1 [=====] - 0s 285ms/step
 1895it [12:34, 2.47it/s]
 1/1 [=====] - 0s 290ms/step
 1896it [12:34, 2.50it/s]
 1/1 [=====] - 0s 276ms/step
 1897it [12:35, 2.47it/s]
 1/1 [=====] - 0s 284ms/step
 1898it [12:35, 2.48it/s]
 1/1 [=====] - 0s 283ms/step
 1899it [12:35, 2.45it/s]
 1/1 [=====] - 0s 291ms/step
 1900it [12:36, 2.48it/s]
 1/1 [=====] - 0s 293ms/step
 1901it [12:36, 2.50it/s]
 1/1 [=====] - 0s 288ms/step
 1902it [12:37, 2.51it/s]
 1/1 [=====] - 0s 289ms/step
 1903it [12:37, 2.52it/s]
 1/1 [=====] - 0s 276ms/step
 1904it [12:37, 2.49it/s]
 1/1 [=====] - 0s 294ms/step
 1905it [12:38, 2.47it/s]
 1/1 [=====] - 0s 283ms/step

1906it [12:38, 2.51it/s]
 1/1 [=====] - 0s 271ms/step
 1907it [12:39, 2.53it/s]
 1/1 [=====] - 0s 288ms/step
 1908it [12:39, 2.54it/s]
 1/1 [=====] - 0s 275ms/step
 1909it [12:39, 2.51it/s]
 1/1 [=====] - 0s 275ms/step
 1910it [12:40, 2.55it/s]
 1/1 [=====] - 0s 282ms/step
 1911it [12:40, 2.46it/s]
 1/1 [=====] - 0s 285ms/step
 1912it [12:41, 2.47it/s]
 1/1 [=====] - 0s 275ms/step
 1913it [12:41, 2.52it/s]
 1/1 [=====] - 0s 284ms/step
 1914it [12:41, 2.54it/s]
 1/1 [=====] - 0s 285ms/step
 1915it [12:42, 2.55it/s]
 1/1 [=====] - 0s 278ms/step
 1916it [12:42, 2.57it/s]
 1/1 [=====] - 0s 273ms/step
 1917it [12:43, 2.47it/s]
 1/1 [=====] - 0s 268ms/step
 1918it [12:43, 2.49it/s]
 1/1 [=====] - 0s 277ms/step
 1919it [12:43, 2.48it/s]
 1/1 [=====] - 0s 281ms/step
 1920it [12:44, 2.45it/s]
 1/1 [=====] - 0s 277ms/step
 1921it [12:44, 2.38it/s]
 1/1 [=====] - 0s 285ms/step

1922it [12:45, 2.41it/s]
 1/1 [=====] - 0s 312ms/step
 1923it [12:45, 2.41it/s]
 1/1 [=====] - 0s 284ms/step
 1924it [12:45, 2.45it/s]
 1/1 [=====] - 0s 282ms/step
 1925it [12:46, 2.49it/s]
 1/1 [=====] - 0s 291ms/step
 1926it [12:46, 2.31it/s]
 1/1 [=====] - 0s 300ms/step
 1927it [12:47, 2.29it/s]
 1/1 [=====] - 0s 328ms/step
 1928it [12:47, 2.20it/s]
 1/1 [=====] - 0s 292ms/step
 1929it [12:48, 2.22it/s]
 1/1 [=====] - 0s 304ms/step
 1930it [12:48, 2.20it/s]
 1/1 [=====] - 0s 332ms/step
 1931it [12:49, 2.15it/s]
 1/1 [=====] - 0s 287ms/step
 1932it [12:49, 2.16it/s]
 1/1 [=====] - 0s 269ms/step
 1933it [12:50, 2.23it/s]
 1/1 [=====] - 0s 268ms/step
 1934it [12:50, 2.34it/s]
 1/1 [=====] - 0s 271ms/step
 1935it [12:50, 2.42it/s]
 1/1 [=====] - 0s 274ms/step
 1936it [12:51, 2.46it/s]
 1/1 [=====] - 0s 327ms/step
 1937it [12:51, 2.41it/s]
 1/1 [=====] - 0s 305ms/step

1938it [12:52, 2.27it/s]
 1/1 [=====] - 0s 295ms/step
 1939it [12:52, 2.27it/s]
 1/1 [=====] - 0s 297ms/step
 1940it [12:53, 2.25it/s]
 1/1 [=====] - 0s 295ms/step
 1941it [12:53, 2.25it/s]
 1/1 [=====] - 0s 314ms/step
 1942it [12:53, 2.21it/s]
 1/1 [=====] - 0s 296ms/step
 1943it [12:54, 2.22it/s]
 1/1 [=====] - 0s 300ms/step
 1944it [12:54, 2.19it/s]
 1/1 [=====] - 0s 306ms/step
 1945it [12:55, 2.13it/s]
 1/1 [=====] - 0s 304ms/step
 1946it [12:55, 2.15it/s]
 1/1 [=====] - 0s 297ms/step
 1947it [12:56, 2.15it/s]
 1/1 [=====] - 0s 295ms/step
 1948it [12:56, 2.17it/s]
 1/1 [=====] - 0s 310ms/step
 1949it [12:57, 2.12it/s]
 1/1 [=====] - 0s 311ms/step
 1950it [12:57, 2.13it/s]
 1/1 [=====] - 0s 266ms/step
 1951it [12:58, 2.25it/s]
 1/1 [=====] - 0s 278ms/step
 1952it [12:58, 2.35it/s]
 1/1 [=====] - 0s 273ms/step
 1953it [12:58, 2.33it/s]
 1/1 [=====] - 0s 316ms/step

1954it [12:59, 2.34it/s]
 1/1 [=====] - 0s 288ms/step
 1955it [12:59, 2.40it/s]
 1/1 [=====] - 0s 269ms/step
 1956it [13:00, 2.48it/s]
 1/1 [=====] - 0s 279ms/step
 1957it [13:00, 2.45it/s]
 1/1 [=====] - 0s 288ms/step
 1958it [13:00, 2.39it/s]
 1/1 [=====] - 0s 280ms/step
 1959it [13:01, 2.45it/s]
 1/1 [=====] - 0s 287ms/step
 1960it [13:01, 2.48it/s]
 1/1 [=====] - 0s 289ms/step
 1961it [13:02, 2.51it/s]
 1/1 [=====] - 0s 303ms/step
 1962it [13:02, 2.46it/s]
 1/1 [=====] - 0s 278ms/step
 1963it [13:02, 2.49it/s]
 1/1 [=====] - 0s 275ms/step
 1964it [13:03, 2.52it/s]
 1/1 [=====] - 0s 298ms/step
 1965it [13:03, 2.50it/s]
 1/1 [=====] - 0s 287ms/step
 1966it [13:04, 2.52it/s]
 1/1 [=====] - 0s 275ms/step
 1967it [13:04, 2.46it/s]
 1/1 [=====] - 0s 287ms/step
 1968it [13:04, 2.48it/s]
 1/1 [=====] - 0s 275ms/step
 1969it [13:05, 2.45it/s]
 1/1 [=====] - 0s 274ms/step

1970it [13:05, 2.50it/s]
 1/1 [=====] - 0s 294ms/step
 1971it [13:06, 2.51it/s]
 1/1 [=====] - 0s 275ms/step
 1972it [13:06, 2.42it/s]
 1/1 [=====] - 0s 275ms/step
 1973it [13:06, 2.49it/s]
 1/1 [=====] - 0s 267ms/step
 1974it [13:07, 2.52it/s]
 1/1 [=====] - 0s 285ms/step
 1975it [13:07, 2.53it/s]
 1/1 [=====] - 0s 315ms/step
 1976it [13:08, 2.46it/s]
 1/1 [=====] - 0s 312ms/step
 1977it [13:08, 2.31it/s]
 1/1 [=====] - 0s 303ms/step
 1978it [13:09, 2.28it/s]
 1/1 [=====] - 0s 308ms/step
 1979it [13:09, 2.24it/s]
 1/1 [=====] - 0s 289ms/step
 1980it [13:10, 2.24it/s]
 1/1 [=====] - 0s 301ms/step
 1981it [13:10, 2.17it/s]
 1/1 [=====] - 0s 296ms/step
 1982it [13:11, 2.10it/s]
 1/1 [=====] - 0s 291ms/step
 1983it [13:11, 2.21it/s]
 1/1 [=====] - 0s 280ms/step
 1984it [13:11, 2.32it/s]
 1/1 [=====] - 0s 302ms/step
 1985it [13:12, 2.35it/s]
 1/1 [=====] - 0s 317ms/step

1986it [13:12, 2.32it/s]
 1/1 [=====] - 0s 342ms/step
 1987it [13:13, 2.29it/s]
 1/1 [=====] - 0s 309ms/step
 1988it [13:13, 2.25it/s]
 1/1 [=====] - 0s 296ms/step
 1989it [13:14, 2.24it/s]
 1/1 [=====] - 0s 302ms/step
 1990it [13:14, 2.23it/s]
 1/1 [=====] - 0s 297ms/step
 1991it [13:15, 2.17it/s]
 1/1 [=====] - 0s 294ms/step
 1992it [13:15, 2.19it/s]
 1/1 [=====] - 0s 311ms/step
 1993it [13:15, 2.13it/s]
 1/1 [=====] - 0s 291ms/step
 1994it [13:16, 2.18it/s]
 1/1 [=====] - 0s 305ms/step
 1995it [13:16, 2.20it/s]
 1/1 [=====] - 0s 293ms/step
 1996it [13:17, 2.25it/s]
 1/1 [=====] - 0s 306ms/step
 1997it [13:17, 2.22it/s]
 1/1 [=====] - 0s 301ms/step
 1998it [13:18, 2.21it/s]
 1/1 [=====] - 0s 319ms/step
 1999it [13:18, 2.18it/s]
 1/1 [=====] - 0s 319ms/step
 2000it [13:19, 2.11it/s]
 1/1 [=====] - 0s 313ms/step
 2001it [13:19, 2.11it/s]
 1/1 [=====] - 0s 313ms/step

2002it [13:20, 2.11it/s]
 1/1 [=====] - 0s 307ms/step
 2003it [13:20, 2.11it/s]
 1/1 [=====] - 0s 268ms/step
 2004it [13:21, 2.16it/s]
 1/1 [=====] - 0s 287ms/step
 2005it [13:21, 2.21it/s]
 1/1 [=====] - 0s 288ms/step
 2006it [13:21, 2.28it/s]
 1/1 [=====] - 0s 285ms/step
 2007it [13:22, 2.36it/s]
 1/1 [=====] - 0s 342ms/step
 2008it [13:22, 2.29it/s]
 1/1 [=====] - 0s 295ms/step
 2009it [13:23, 2.36it/s]
 1/1 [=====] - 0s 304ms/step
 2010it [13:23, 2.36it/s]
 1/1 [=====] - 0s 288ms/step
 2011it [13:23, 2.33it/s]
 1/1 [=====] - 0s 299ms/step
 2012it [13:24, 2.29it/s]
 1/1 [=====] - 0s 291ms/step
 2013it [13:24, 2.21it/s]
 1/1 [=====] - 0s 307ms/step
 2014it [13:25, 2.19it/s]
 1/1 [=====] - 0s 309ms/step
 2015it [13:25, 2.19it/s]
 1/1 [=====] - 0s 360ms/step
 2016it [13:26, 2.11it/s]
 1/1 [=====] - 0s 317ms/step
 2017it [13:26, 2.06it/s]
 1/1 [=====] - 0s 345ms/step

2018it [13:27, 2.02it/s]
 1/1 [=====] - 0s 310ms/step
 2019it [13:27, 2.04it/s]
 1/1 [=====] - 0s 301ms/step
 2020it [13:28, 2.07it/s]
 1/1 [=====] - 0s 337ms/step
 2021it [13:28, 2.00it/s]
 1/1 [=====] - 0s 313ms/step
 2022it [13:29, 2.10it/s]
 1/1 [=====] - 0s 293ms/step
 2023it [13:29, 2.20it/s]
 1/1 [=====] - 0s 271ms/step
 2024it [13:30, 2.30it/s]
 1/1 [=====] - 0s 314ms/step
 2025it [13:30, 2.28it/s]
 1/1 [=====] - 0s 290ms/step
 2026it [13:30, 2.35it/s]
 1/1 [=====] - 0s 288ms/step
 2027it [13:31, 2.41it/s]
 1/1 [=====] - 0s 280ms/step
 2028it [13:31, 2.46it/s]
 1/1 [=====] - 0s 283ms/step
 2029it [13:32, 2.43it/s]
 1/1 [=====] - 0s 283ms/step
 2030it [13:32, 2.40it/s]
 1/1 [=====] - 0s 283ms/step
 2031it [13:32, 2.44it/s]
 1/1 [=====] - 0s 294ms/step
 2032it [13:33, 2.36it/s]
 1/1 [=====] - 0s 297ms/step
 2033it [13:33, 2.31it/s]
 1/1 [=====] - 0s 293ms/step

2034it [13:34, 2.22it/s]
 1/1 [=====] - 0s 308ms/step
 2035it [13:34, 2.20it/s]
 1/1 [=====] - 0s 312ms/step
 2036it [13:35, 2.18it/s]
 1/1 [=====] - 0s 296ms/step
 2037it [13:35, 2.18it/s]
 1/1 [=====] - 0s 299ms/step
 2038it [13:36, 2.18it/s]
 1/1 [=====] - 0s 297ms/step
 2039it [13:36, 2.17it/s]
 1/1 [=====] - 0s 299ms/step
 2040it [13:37, 2.23it/s]
 1/1 [=====] - 0s 304ms/step
 2041it [13:37, 2.17it/s]
 1/1 [=====] - 0s 306ms/step
 2042it [13:38, 2.17it/s]
 1/1 [=====] - 0s 345ms/step
 2043it [13:38, 2.12it/s]
 1/1 [=====] - 0s 291ms/step
 2044it [13:38, 2.16it/s]
 1/1 [=====] - 0s 294ms/step
 2045it [13:39, 2.18it/s]
 1/1 [=====] - 0s 304ms/step
 2046it [13:39, 2.18it/s]
 1/1 [=====] - 0s 310ms/step
 2047it [13:40, 2.18it/s]
 1/1 [=====] - 0s 304ms/step
 2048it [13:40, 2.13it/s]
 1/1 [=====] - 0s 301ms/step
 2049it [13:41, 2.15it/s]
 1/1 [=====] - 0s 283ms/step

2050it [13:41, 2.26it/s]
 1/1 [=====] - 0s 295ms/step
 2051it [13:42, 2.33it/s]
 1/1 [=====] - 0s 295ms/step
 2052it [13:42, 2.38it/s]
 1/1 [=====] - 0s 271ms/step
 2053it [13:42, 2.32it/s]
 1/1 [=====] - 0s 286ms/step
 2054it [13:43, 2.37it/s]
 1/1 [=====] - 0s 305ms/step
 2055it [13:43, 2.30it/s]
 1/1 [=====] - 0s 307ms/step
 2056it [13:44, 2.25it/s]
 1/1 [=====] - 0s 318ms/step
 2057it [13:44, 2.21it/s]
 1/1 [=====] - 0s 288ms/step
 2058it [13:45, 2.17it/s]
 1/1 [=====] - 0s 315ms/step
 2059it [13:45, 2.16it/s]
 1/1 [=====] - 0s 291ms/step
 2060it [13:46, 2.19it/s]
 1/1 [=====] - 0s 315ms/step
 2061it [13:46, 2.18it/s]
 1/1 [=====] - 0s 292ms/step
 2062it [13:47, 2.12it/s]
 1/1 [=====] - 0s 347ms/step
 2063it [13:47, 2.09it/s]
 1/1 [=====] - 0s 310ms/step
 2064it [13:48, 2.11it/s]
 1/1 [=====] - 0s 285ms/step
 2065it [13:48, 2.11it/s]
 1/1 [=====] - 0s 301ms/step

2066it [13:48, 2.14it/s]
 1/1 [=====] - 0s 301ms/step
 2067it [13:49, 2.13it/s]
 1/1 [=====] - 0s 309ms/step
 2068it [13:49, 2.14it/s]
 1/1 [=====] - 0s 313ms/step
 2069it [13:50, 2.15it/s]
 1/1 [=====] - 0s 267ms/step
 2070it [13:50, 2.27it/s]
 1/1 [=====] - 0s 304ms/step
 2071it [13:51, 2.27it/s]
 1/1 [=====] - 0s 289ms/step
 2072it [13:51, 2.34it/s]
 1/1 [=====] - 0s 283ms/step
 2073it [13:51, 2.41it/s]
 1/1 [=====] - 0s 292ms/step
 2074it [13:52, 2.43it/s]
 1/1 [=====] - 0s 279ms/step
 2075it [13:52, 2.39it/s]
 1/1 [=====] - 0s 297ms/step
 2076it [13:53, 2.40it/s]
 1/1 [=====] - 0s 274ms/step
 2077it [13:53, 2.41it/s]
 1/1 [=====] - 0s 280ms/step
 2078it [13:54, 2.46it/s]
 1/1 [=====] - 0s 282ms/step
 2079it [13:54, 2.48it/s]
 1/1 [=====] - 0s 290ms/step
 2080it [13:54, 2.36it/s]
 1/1 [=====] - 0s 313ms/step
 2081it [13:55, 2.29it/s]
 1/1 [=====] - 0s 309ms/step

2082it [13:55, 2.24it/s]
 1/1 [=====] - 0s 294ms/step
 2083it [13:56, 2.24it/s]
 1/1 [=====] - 0s 315ms/step
 2084it [13:56, 2.20it/s]
 1/1 [=====] - 0s 292ms/step
 2085it [13:57, 2.16it/s]
 1/1 [=====] - 0s 323ms/step
 2086it [13:57, 2.14it/s]
 1/1 [=====] - 0s 296ms/step
 2087it [13:58, 2.16it/s]
 1/1 [=====] - 0s 300ms/step
 2088it [13:58, 2.17it/s]
 1/1 [=====] - 0s 301ms/step
 2089it [13:59, 2.13it/s]
 1/1 [=====] - 0s 291ms/step
 2090it [13:59, 2.08it/s]
 1/1 [=====] - 0s 296ms/step
 2091it [14:00, 2.11it/s]
 1/1 [=====] - 0s 297ms/step
 2092it [14:00, 2.13it/s]
 1/1 [=====] - 0s 314ms/step
 2093it [14:00, 2.14it/s]
 1/1 [=====] - 0s 313ms/step
 2094it [14:01, 2.11it/s]
 1/1 [=====] - 0s 285ms/step
 2095it [14:01, 2.17it/s]
 1/1 [=====] - 0s 273ms/step
 2096it [14:02, 2.28it/s]
 1/1 [=====] - 0s 303ms/step
 2097it [14:02, 2.31it/s]
 1/1 [=====] - 0s 290ms/step

2098it [14:03, 2.37it/s]
 1/1 [=====] - 0s 288ms/step
 2099it [14:03, 2.42it/s]
 1/1 [=====] - 0s 276ms/step
 2100it [14:03, 2.38it/s]
 1/1 [=====] - 0s 277ms/step
 2101it [14:04, 2.38it/s]
 1/1 [=====] - 0s 313ms/step
 2102it [14:04, 2.39it/s]
 1/1 [=====] - 0s 295ms/step
 2103it [14:05, 2.33it/s]
 1/1 [=====] - 0s 309ms/step
 2104it [14:05, 2.28it/s]
 1/1 [=====] - 0s 295ms/step
 2105it [14:06, 2.20it/s]
 1/1 [=====] - 0s 312ms/step
 2106it [14:06, 2.17it/s]
 1/1 [=====] - 0s 296ms/step
 2107it [14:07, 2.19it/s]
 1/1 [=====] - 0s 327ms/step
 2108it [14:07, 2.16it/s]
 1/1 [=====] - 0s 363ms/step
 2109it [14:08, 2.04it/s]
 1/1 [=====] - 0s 318ms/step
 2110it [14:08, 2.07it/s]
 1/1 [=====] - 0s 302ms/step
 2111it [14:09, 2.11it/s]
 1/1 [=====] - 0s 311ms/step
 2112it [14:09, 2.12it/s]
 1/1 [=====] - 0s 289ms/step
 2113it [14:09, 2.11it/s]
 1/1 [=====] - 0s 301ms/step

2114it [14:10, 2.07it/s]
 1/1 [=====] - 0s 286ms/step
 2115it [14:10, 2.20it/s]
 1/1 [=====] - 0s 290ms/step
 2116it [14:11, 2.29it/s]
 1/1 [=====] - 0s 288ms/step
 2117it [14:11, 2.36it/s]
 1/1 [=====] - 0s 278ms/step
 2118it [14:12, 2.32it/s]
 1/1 [=====] - 0s 299ms/step
 2119it [14:12, 2.37it/s]
 1/1 [=====] - 0s 307ms/step
 2120it [14:12, 2.31it/s]
 1/1 [=====] - 0s 303ms/step
 2121it [14:13, 2.27it/s]
 1/1 [=====] - 0s 298ms/step
 2122it [14:13, 2.26it/s]
 1/1 [=====] - 0s 300ms/step
 2123it [14:14, 2.20it/s]
 1/1 [=====] - 0s 305ms/step
 2124it [14:14, 2.19it/s]
 1/1 [=====] - 0s 321ms/step
 2125it [14:15, 2.12it/s]
 1/1 [=====] - 0s 310ms/step
 2126it [14:15, 2.13it/s]
 1/1 [=====] - 0s 303ms/step
 2127it [14:16, 2.09it/s]
 1/1 [=====] - 0s 304ms/step
 2128it [14:16, 2.12it/s]
 1/1 [=====] - 0s 315ms/step
 2129it [14:17, 2.10it/s]
 1/1 [=====] - 0s 298ms/step

2130it [14:17, 2.13it/s]
 1/1 [=====] - 0s 298ms/step
 2131it [14:18, 2.14it/s]
 1/1 [=====] - 0s 322ms/step
 2132it [14:18, 2.08it/s]
 1/1 [=====] - 0s 314ms/step
 2133it [14:19, 2.11it/s]
 1/1 [=====] - 0s 323ms/step
 2134it [14:19, 2.11it/s]
 1/1 [=====] - 0s 279ms/step
 2135it [14:19, 2.24it/s]
 1/1 [=====] - 0s 272ms/step
 2136it [14:20, 2.33it/s]
 1/1 [=====] - 0s 285ms/step
 2137it [14:20, 2.24it/s]
 1/1 [=====] - 0s 296ms/step
 2138it [14:21, 2.30it/s]
 1/1 [=====] - 0s 282ms/step
 2139it [14:21, 2.38it/s]
 1/1 [=====] - 0s 299ms/step
 2140it [14:22, 2.33it/s]
 1/1 [=====] - 0s 307ms/step
 2141it [14:22, 2.27it/s]
 1/1 [=====] - 0s 305ms/step
 2142it [14:23, 2.18it/s]
 1/1 [=====] - 0s 308ms/step
 2143it [14:23, 2.18it/s]
 1/1 [=====] - 0s 299ms/step
 2144it [14:23, 2.20it/s]
 1/1 [=====] - 0s 293ms/step
 2145it [14:24, 2.21it/s]
 1/1 [=====] - 0s 294ms/step

2146it [14:24, 2.13it/s]
 1/1 [=====] - 0s 314ms/step
 2147it [14:25, 2.14it/s]
 1/1 [=====] - 0s 304ms/step
 2148it [14:25, 2.14it/s]
 1/1 [=====] - 0s 320ms/step
 2149it [14:26, 2.09it/s]
 1/1 [=====] - 0s 305ms/step
 2150it [14:26, 2.11it/s]
 1/1 [=====] - 0s 297ms/step
 2151it [14:27, 2.09it/s]
 1/1 [=====] - 0s 306ms/step
 2152it [14:27, 2.12it/s]
 1/1 [=====] - 0s 309ms/step
 2153it [14:28, 2.18it/s]
 1/1 [=====] - 0s 340ms/step
 2154it [14:28, 2.19it/s]
 1/1 [=====] - 0s 297ms/step
 2155it [14:29, 2.24it/s]
 1/1 [=====] - 0s 294ms/step
 2156it [14:29, 2.25it/s]
 1/1 [=====] - 0s 283ms/step
 2157it [14:29, 2.33it/s]
 1/1 [=====] - 0s 291ms/step
 2158it [14:30, 2.38it/s]
 1/1 [=====] - 0s 305ms/step
 2159it [14:30, 2.36it/s]
 1/1 [=====] - 0s 319ms/step
 2160it [14:31, 2.35it/s]
 1/1 [=====] - 0s 292ms/step
 2161it [14:31, 2.23it/s]
 1/1 [=====] - 0s 300ms/step

2162it [14:32, 2.20it/s]
 1/1 [=====] - 0s 302ms/step
 2163it [14:32, 2.20it/s]
 1/1 [=====] - 0s 313ms/step
 2164it [14:33, 2.19it/s]
 1/1 [=====] - 0s 331ms/step
 2165it [14:33, 2.15it/s]
 1/1 [=====] - 0s 305ms/step
 2166it [14:34, 2.12it/s]
 1/1 [=====] - 0s 312ms/step
 2167it [14:34, 2.13it/s]
 1/1 [=====] - 0s 302ms/step
 2168it [14:34, 2.16it/s]
 1/1 [=====] - 0s 292ms/step
 2169it [14:35, 2.17it/s]
 1/1 [=====] - 0s 312ms/step
 2170it [14:35, 2.16it/s]
 1/1 [=====] - 0s 296ms/step
 2171it [14:36, 2.16it/s]
 1/1 [=====] - 0s 295ms/step
 2172it [14:36, 2.25it/s]
 1/1 [=====] - 0s 298ms/step
 2173it [14:37, 2.25it/s]
 1/1 [=====] - 0s 303ms/step
 2174it [14:37, 2.14it/s]
 1/1 [=====] - 0s 296ms/step
 2175it [14:38, 2.16it/s]
 1/1 [=====] - 0s 316ms/step
 2176it [14:38, 2.16it/s]
 1/1 [=====] - 0s 325ms/step
 2177it [14:39, 2.14it/s]
 1/1 [=====] - 0s 282ms/step

2178it [14:39, 2.26it/s]
 1/1 [=====] - 0s 268ms/step
 2179it [14:39, 2.25it/s]
 1/1 [=====] - 0s 280ms/step
 2180it [14:40, 2.35it/s]
 1/1 [=====] - 0s 300ms/step
 2181it [14:40, 2.39it/s]
 1/1 [=====] - 0s 306ms/step
 2182it [14:41, 2.41it/s]
 1/1 [=====] - 0s 305ms/step
 2183it [14:41, 2.28it/s]
 1/1 [=====] - 0s 300ms/step
 2184it [14:42, 2.25it/s]
 1/1 [=====] - 0s 285ms/step
 2185it [14:42, 2.20it/s]
 1/1 [=====] - 0s 361ms/step
 2186it [14:43, 2.12it/s]
 1/1 [=====] - 0s 304ms/step
 2187it [14:43, 2.14it/s]
 1/1 [=====] - 0s 297ms/step
 2188it [14:43, 2.17it/s]
 1/1 [=====] - 0s 300ms/step
 2189it [14:44, 2.18it/s]
 1/1 [=====] - 0s 276ms/step
 2190it [14:44, 2.29it/s]
 1/1 [=====] - 0s 293ms/step
 2191it [14:45, 2.25it/s]
 1/1 [=====] - 0s 325ms/step
 2192it [14:45, 2.20it/s]
 1/1 [=====] - 0s 298ms/step
 2193it [14:46, 2.21it/s]
 1/1 [=====] - 0s 311ms/step

2194it [14:46, 2.20it/s]
 1/1 [=====] - 0s 296ms/step
 2195it [14:47, 2.21it/s]
 1/1 [=====] - 0s 314ms/step
 2196it [14:47, 2.14it/s]
 1/1 [=====] - 0s 290ms/step
 2197it [14:48, 2.12it/s]
 1/1 [=====] - 0s 349ms/step
 2198it [14:48, 2.09it/s]
 1/1 [=====] - 0s 298ms/step
 2199it [14:49, 2.08it/s]
 1/1 [=====] - 0s 318ms/step
 2200it [14:49, 2.07it/s]
 1/1 [=====] - 0s 330ms/step
 2201it [14:50, 2.07it/s]
 1/1 [=====] - 0s 303ms/step
 2202it [14:50, 2.11it/s]
 1/1 [=====] - 0s 284ms/step
 2203it [14:50, 2.21it/s]
 1/1 [=====] - 0s 285ms/step
 2204it [14:51, 2.21it/s]
 1/1 [=====] - 0s 299ms/step
 2205it [14:51, 2.29it/s]
 1/1 [=====] - 0s 275ms/step
 2206it [14:52, 2.37it/s]
 1/1 [=====] - 0s 295ms/step
 2207it [14:52, 2.41it/s]
 1/1 [=====] - 0s 302ms/step
 2208it [14:52, 2.43it/s]
 1/1 [=====] - 0s 314ms/step
 2209it [14:53, 2.23it/s]
 1/1 [=====] - 0s 342ms/step

2210it [14:53, 2.14it/s]
 1/1 [=====] - 0s 336ms/step
 2211it [14:54, 2.11it/s]
 1/1 [=====] - 0s 302ms/step
 2212it [14:54, 2.14it/s]
 1/1 [=====] - 0s 315ms/step
 2213it [14:55, 2.09it/s]
 1/1 [=====] - 0s 323ms/step
 2214it [14:55, 2.00it/s]
 1/1 [=====] - 0s 305ms/step
 2215it [14:56, 2.05it/s]
 1/1 [=====] - 0s 307ms/step
 2216it [14:56, 2.09it/s]
 1/1 [=====] - 0s 388ms/step
 2217it [14:57, 2.02it/s]
 1/1 [=====] - 0s 315ms/step
 2218it [14:57, 2.05it/s]
 1/1 [=====] - 0s 307ms/step
 2219it [14:58, 2.08it/s]
 1/1 [=====] - 0s 337ms/step
 2220it [14:58, 2.02it/s]
 1/1 [=====] - 0s 280ms/step
 2221it [14:59, 2.06it/s]
 1/1 [=====] - 0s 291ms/step
 2222it [14:59, 2.15it/s]
 1/1 [=====] - 0s 299ms/step
 2223it [15:00, 2.25it/s]
 1/1 [=====] - 0s 300ms/step
 2224it [15:00, 2.31it/s]
 1/1 [=====] - 0s 280ms/step
 2225it [15:01, 2.31it/s]
 1/1 [=====] - 0s 311ms/step

2226it [15:01, 2.30it/s]
 1/1 [=====] - 0s 310ms/step
 2227it [15:01, 2.26it/s]
 1/1 [=====] - 0s 314ms/step
 2228it [15:02, 2.22it/s]
 1/1 [=====] - 0s 319ms/step
 2229it [15:02, 2.18it/s]
 1/1 [=====] - 0s 308ms/step
 2230it [15:03, 2.12it/s]
 1/1 [=====] - 0s 311ms/step
 2231it [15:03, 2.13it/s]
 1/1 [=====] - 0s 307ms/step
 2232it [15:04, 2.14it/s]
 1/1 [=====] - 0s 292ms/step
 2233it [15:04, 2.11it/s]
 1/1 [=====] - 0s 315ms/step
 2234it [15:05, 2.12it/s]
 1/1 [=====] - 0s 312ms/step
 2235it [15:05, 2.10it/s]
 1/1 [=====] - 0s 327ms/step
 2236it [15:06, 2.10it/s]
 1/1 [=====] - 0s 312ms/step
 2237it [15:06, 2.12it/s]
 1/1 [=====] - 0s 316ms/step
 2238it [15:07, 2.12it/s]
 1/1 [=====] - 0s 288ms/step
 2239it [15:07, 2.17it/s]
 1/1 [=====] - 0s 282ms/step
 2240it [15:08, 2.19it/s]
 1/1 [=====] - 0s 285ms/step
 2241it [15:08, 2.28it/s]
 1/1 [=====] - 0s 289ms/step

2242it [15:08, 2.35it/s]
 1/1 [=====] - 0s 276ms/step
 2243it [15:09, 2.41it/s]
 1/1 [=====] - 0s 330ms/step
 2244it [15:09, 2.33it/s]
 1/1 [=====] - 0s 289ms/step
 2245it [15:10, 2.17it/s]
 1/1 [=====] - 0s 326ms/step
 2246it [15:10, 2.15it/s]
 1/1 [=====] - 0s 317ms/step
 2247it [15:11, 2.14it/s]
 1/1 [=====] - 0s 315ms/step
 2248it [15:11, 2.13it/s]
 1/1 [=====] - 0s 318ms/step
 2249it [15:12, 2.13it/s]
 1/1 [=====] - 0s 310ms/step
 2250it [15:12, 2.09it/s]
 1/1 [=====] - 0s 301ms/step
 2251it [15:13, 2.12it/s]
 1/1 [=====] - 0s 307ms/step
 2252it [15:13, 2.14it/s]
 1/1 [=====] - 0s 311ms/step
 2253it [15:13, 2.13it/s]
 1/1 [=====] - 0s 331ms/step
 2254it [15:14, 2.12it/s]
 1/1 [=====] - 0s 300ms/step
 2255it [15:14, 2.08it/s]
 1/1 [=====] - 0s 316ms/step
 2256it [15:15, 2.10it/s]
 1/1 [=====] - 0s 268ms/step
 2257it [15:15, 2.15it/s]
 1/1 [=====] - 0s 294ms/step

2258it [15:16, 2.24it/s]
 1/1 [=====] - 0s 294ms/step
 2259it [15:16, 2.32it/s]
 1/1 [=====] - 0s 276ms/step
 2260it [15:17, 2.32it/s]
 1/1 [=====] - 0s 287ms/step
 2261it [15:17, 2.38it/s]
 1/1 [=====] - 0s 306ms/step
 2262it [15:17, 2.36it/s]
 1/1 [=====] - 0s 309ms/step
 2263it [15:18, 2.31it/s]
 1/1 [=====] - 0s 372ms/step
 2264it [15:18, 2.17it/s]
 1/1 [=====] - 0s 291ms/step
 2265it [15:19, 2.20it/s]
 1/1 [=====] - 0s 317ms/step
 2266it [15:19, 2.17it/s]
 1/1 [=====] - 0s 310ms/step
 2267it [15:20, 2.15it/s]
 1/1 [=====] - 0s 317ms/step
 2268it [15:20, 2.14it/s]
 1/1 [=====] - 0s 295ms/step
 2269it [15:21, 2.06it/s]
 1/1 [=====] - 0s 316ms/step
 2270it [15:21, 2.08it/s]
 1/1 [=====] - 0s 303ms/step
 2271it [15:22, 2.10it/s]
 1/1 [=====] - 0s 313ms/step
 2272it [15:22, 2.11it/s]
 1/1 [=====] - 0s 326ms/step
 2273it [15:23, 2.08it/s]
 1/1 [=====] - 0s 300ms/step

2274it [15:23, 2.12it/s]
 1/1 [=====] - 0s 293ms/step
 2275it [15:24, 2.17it/s]
 1/1 [=====] - 0s 301ms/step
 2276it [15:24, 2.25it/s]
 1/1 [=====] - 0s 278ms/step
 2277it [15:24, 2.35it/s]
 1/1 [=====] - 0s 285ms/step
 2278it [15:25, 2.31it/s]
 1/1 [=====] - 0s 319ms/step
 2279it [15:25, 2.23it/s]
 1/1 [=====] - 0s 314ms/step
 2280it [15:26, 2.21it/s]
 1/1 [=====] - 0s 290ms/step
 2281it [15:26, 2.15it/s]
 1/1 [=====] - 0s 295ms/step
 2282it [15:27, 2.10it/s]
 1/1 [=====] - 0s 308ms/step
 2283it [15:27, 2.12it/s]
 1/1 [=====] - 0s 322ms/step
 2284it [15:28, 2.12it/s]
 1/1 [=====] - 0s 323ms/step
 2285it [15:28, 2.01it/s]
 1/1 [=====] - 0s 333ms/step
 2286it [15:29, 2.03it/s]
 1/1 [=====] - 0s 372ms/step
 2287it [15:29, 1.97it/s]
 1/1 [=====] - 0s 328ms/step
 2288it [15:30, 1.93it/s]
 1/1 [=====] - 0s 331ms/step
 2289it [15:30, 1.97it/s]
 1/1 [=====] - 0s 305ms/step

2290it [15:31, 2.03it/s]
 1/1 [=====] - 0s 311ms/step
 2291it [15:31, 2.07it/s]
 1/1 [=====] - 0s 297ms/step
 2292it [15:32, 2.12it/s]
 1/1 [=====] - 0s 270ms/step
 2293it [15:32, 2.15it/s]
 1/1 [=====] - 0s 334ms/step
 2294it [15:33, 2.19it/s]
 1/1 [=====] - 0s 273ms/step
 2295it [15:33, 2.28it/s]
 1/1 [=====] - 0s 278ms/step
 2296it [15:33, 2.37it/s]
 1/1 [=====] - 0s 322ms/step
 2297it [15:34, 2.30it/s]
 1/1 [=====] - 0s 301ms/step
 2298it [15:34, 2.22it/s]
 1/1 [=====] - 0s 312ms/step
 2299it [15:35, 2.19it/s]
 1/1 [=====] - 0s 312ms/step
 2300it [15:35, 2.18it/s]
 1/1 [=====] - 0s 305ms/step
 2301it [15:36, 2.14it/s]
 1/1 [=====] - 0s 322ms/step
 2302it [15:36, 2.12it/s]
 1/1 [=====] - 0s 298ms/step
 2303it [15:37, 2.15it/s]
 1/1 [=====] - 0s 362ms/step
 2304it [15:37, 2.08it/s]
 1/1 [=====] - 0s 295ms/step
 2305it [15:38, 2.08it/s]
 1/1 [=====] - 0s 337ms/step

2306it [15:38, 2.03it/s]
 1/1 [=====] - 0s 310ms/step
 2307it [15:39, 2.07it/s]
 1/1 [=====] - 0s 302ms/step
 2308it [15:39, 2.11it/s]
 1/1 [=====] - 0s 279ms/step
 2309it [15:39, 2.21it/s]
 1/1 [=====] - 0s 280ms/step
 2310it [15:40, 2.31it/s]
 1/1 [=====] - 0s 296ms/step
 2311it [15:40, 2.23it/s]
 1/1 [=====] - 0s 290ms/step
 2312it [15:41, 2.32it/s]
 1/1 [=====] - 0s 286ms/step
 2313it [15:41, 2.38it/s]
 1/1 [=====] - 0s 336ms/step
 2314it [15:42, 2.27it/s]
 1/1 [=====] - 0s 305ms/step
 2315it [15:42, 2.24it/s]
 1/1 [=====] - 0s 319ms/step
 2316it [15:43, 2.14it/s]
 1/1 [=====] - 0s 302ms/step
 2317it [15:43, 2.10it/s]
 1/1 [=====] - 0s 302ms/step
 2318it [15:44, 2.14it/s]
 1/1 [=====] - 0s 299ms/step
 2319it [15:44, 2.15it/s]
 1/1 [=====] - 0s 311ms/step
 2320it [15:44, 2.15it/s]
 1/1 [=====] - 0s 312ms/step
 2321it [15:45, 2.13it/s]
 1/1 [=====] - 0s 305ms/step

2322it [15:45, 2.14it/s]
 1/1 [=====] - 0s 316ms/step
 2323it [15:46, 2.13it/s]
 1/1 [=====] - 0s 302ms/step
 2324it [15:46, 2.08it/s]
 1/1 [=====] - 0s 304ms/step
 2325it [15:47, 2.10it/s]
 1/1 [=====] - 0s 318ms/step
 2326it [15:47, 2.08it/s]
 1/1 [=====] - 0s 294ms/step
 2327it [15:48, 2.16it/s]
 1/1 [=====] - 0s 298ms/step
 2328it [15:48, 2.13it/s]
 1/1 [=====] - 0s 288ms/step
 2329it [15:49, 2.18it/s]
 1/1 [=====] - 0s 293ms/step
 2330it [15:49, 2.27it/s]
 1/1 [=====] - 0s 312ms/step
 2331it [15:49, 2.30it/s]
 1/1 [=====] - 0s 328ms/step
 2332it [15:50, 2.21it/s]
 1/1 [=====] - 0s 342ms/step
 2333it [15:50, 2.15it/s]
 1/1 [=====] - 0s 316ms/step
 2334it [15:51, 2.14it/s]
 1/1 [=====] - 0s 314ms/step
 2335it [15:51, 2.15it/s]
 1/1 [=====] - 0s 296ms/step
 2336it [15:52, 2.16it/s]
 1/1 [=====] - 0s 293ms/step
 2337it [15:52, 2.12it/s]
 1/1 [=====] - 0s 302ms/step

2338it [15:53, 2.13it/s]
 1/1 [=====] - 0s 294ms/step
 2339it [15:53, 2.16it/s]
 1/1 [=====] - 0s 333ms/step
 2340it [15:54, 2.13it/s]
 1/1 [=====] - 0s 290ms/step
 2341it [15:54, 2.12it/s]
 1/1 [=====] - 0s 334ms/step
 2342it [15:55, 2.05it/s]
 1/1 [=====] - 0s 304ms/step
 2343it [15:55, 2.09it/s]
 1/1 [=====] - 0s 296ms/step
 2344it [15:56, 2.13it/s]
 1/1 [=====] - 0s 284ms/step
 2345it [15:56, 2.23it/s]
 1/1 [=====] - 0s 290ms/step
 2346it [15:56, 2.31it/s]
 1/1 [=====] - 0s 286ms/step
 2347it [15:57, 2.30it/s]
 1/1 [=====] - 0s 291ms/step
 2348it [15:57, 2.33it/s]
 1/1 [=====] - 0s 289ms/step
 2349it [15:58, 2.39it/s]
 1/1 [=====] - 0s 330ms/step
 2350it [15:58, 2.25it/s]
 1/1 [=====] - 0s 308ms/step
 2351it [15:59, 2.19it/s]
 1/1 [=====] - 0s 328ms/step
 2352it [15:59, 2.14it/s]
 1/1 [=====] - 0s 286ms/step
 2353it [16:00, 2.11it/s]
 1/1 [=====] - 0s 292ms/step

2354it [16:00, 2.16it/s]
 1/1 [=====] - 0s 314ms/step
 2355it [16:01, 2.13it/s]
 1/1 [=====] - 0s 297ms/step
 2356it [16:01, 2.10it/s]
 1/1 [=====] - 0s 321ms/step
 2357it [16:02, 2.09it/s]
 1/1 [=====] - 0s 313ms/step
 2358it [16:02, 2.10it/s]
 1/1 [=====] - 0s 314ms/step
 2359it [16:03, 2.12it/s]
 1/1 [=====] - 0s 323ms/step
 2360it [16:03, 2.10it/s]
 1/1 [=====] - 0s 304ms/step
 2361it [16:04, 2.06it/s]
 1/1 [=====] - 0s 276ms/step
 2362it [16:04, 2.12it/s]
 1/1 [=====] - 0s 288ms/step
 2363it [16:04, 2.23it/s]
 1/1 [=====] - 0s 298ms/step
 2364it [16:05, 2.23it/s]
 1/1 [=====] - 0s 270ms/step
 2365it [16:05, 2.27it/s]
 1/1 [=====] - 0s 277ms/step
 2366it [16:06, 2.36it/s]
 1/1 [=====] - 0s 337ms/step
 2367it [16:06, 2.30it/s]
 1/1 [=====] - 0s 309ms/step
 2368it [16:07, 2.26it/s]
 1/1 [=====] - 0s 317ms/step
 2369it [16:07, 2.15it/s]
 1/1 [=====] - 0s 302ms/step

2370it [16:07, 2.16it/s]
 1/1 [=====] - 0s 305ms/step
 2371it [16:08, 2.16it/s]
 1/1 [=====] - 0s 295ms/step
 2372it [16:08, 2.17it/s]
 1/1 [=====] - 0s 309ms/step
 2373it [16:09, 2.18it/s]
 1/1 [=====] - 0s 307ms/step
 2374it [16:09, 2.11it/s]
 1/1 [=====] - 0s 306ms/step
 2375it [16:10, 2.13it/s]
 1/1 [=====] - 0s 316ms/step
 2376it [16:10, 2.11it/s]
 1/1 [=====] - 0s 298ms/step
 2377it [16:11, 2.09it/s]
 1/1 [=====] - 0s 309ms/step
 2378it [16:11, 2.09it/s]
 1/1 [=====] - 0s 330ms/step
 2379it [16:12, 2.02it/s]
 1/1 [=====] - 0s 295ms/step
 2380it [16:12, 2.13it/s]
 1/1 [=====] - 0s 309ms/step
 2381it [16:13, 2.20it/s]
 1/1 [=====] - 0s 292ms/step
 2382it [16:13, 2.28it/s]
 1/1 [=====] - 0s 286ms/step
 2383it [16:13, 2.36it/s]
 1/1 [=====] - 0s 295ms/step
 2384it [16:14, 2.33it/s]
 1/1 [=====] - 0s 311ms/step
 2385it [16:14, 2.27it/s]
 1/1 [=====] - 0s 317ms/step

2386it [16:15, 2.20it/s]
 1/1 [=====] - 0s 312ms/step
 2387it [16:15, 2.19it/s]
 1/1 [=====] - 0s 299ms/step
 2388it [16:16, 2.19it/s]
 1/1 [=====] - 0s 287ms/step
 2389it [16:16, 2.08it/s]
 1/1 [=====] - 0s 304ms/step
 2390it [16:17, 2.09it/s]
 1/1 [=====] - 0s 310ms/step
 2391it [16:17, 2.11it/s]
 1/1 [=====] - 0s 319ms/step
 2392it [16:18, 2.11it/s]
 1/1 [=====] - 0s 328ms/step
 2393it [16:18, 2.10it/s]
 1/1 [=====] - 0s 299ms/step
 2394it [16:19, 2.08it/s]
 1/1 [=====] - 0s 331ms/step
 2395it [16:19, 2.08it/s]
 1/1 [=====] - 0s 304ms/step
 2396it [16:20, 2.10it/s]
 1/1 [=====] - 0s 293ms/step
 2397it [16:20, 2.20it/s]
 1/1 [=====] - 0s 290ms/step
 2398it [16:20, 2.20it/s]
 1/1 [=====] - 0s 291ms/step
 2399it [16:21, 2.28it/s]
 1/1 [=====] - 0s 313ms/step
 2400it [16:21, 2.31it/s]
 1/1 [=====] - 0s 284ms/step
 2401it [16:22, 2.29it/s]
 1/1 [=====] - 0s 303ms/step

2402it [16:22, 2.26it/s]
 1/1 [=====] - 0s 315ms/step
 2403it [16:23, 2.14it/s]
 1/1 [=====] - 0s 309ms/step
 2404it [16:23, 2.15it/s]
 1/1 [=====] - 0s 332ms/step
 2405it [16:24, 2.13it/s]
 1/1 [=====] - 0s 308ms/step
 2406it [16:24, 2.14it/s]
 1/1 [=====] - 0s 321ms/step
 2407it [16:25, 2.08it/s]
 1/1 [=====] - 0s 301ms/step
 2408it [16:25, 2.10it/s]
 1/1 [=====] - 0s 315ms/step
 2409it [16:26, 2.11it/s]
 1/1 [=====] - 0s 339ms/step
 2410it [16:26, 2.06it/s]
 1/1 [=====] - 0s 289ms/step
 2411it [16:27, 2.05it/s]
 1/1 [=====] - 0s 334ms/step
 2412it [16:27, 2.05it/s]
 1/1 [=====] - 0s 296ms/step
 2413it [16:28, 2.05it/s]
 1/1 [=====] - 0s 286ms/step
 2414it [16:28, 2.11it/s]
 1/1 [=====] - 0s 286ms/step
 2415it [16:28, 2.22it/s]
 1/1 [=====] - 0s 288ms/step
 2416it [16:29, 2.23it/s]
 1/1 [=====] - 0s 313ms/step
 2417it [16:29, 2.27it/s]
 1/1 [=====] - 0s 276ms/step

2418it [16:30, 2.35it/s]
 1/1 [=====] - 0s 345ms/step
 2419it [16:30, 2.28it/s]
 1/1 [=====] - 0s 324ms/step
 2420it [16:31, 2.19it/s]
 1/1 [=====] - 0s 308ms/step
 2421it [16:31, 2.11it/s]
 1/1 [=====] - 0s 311ms/step
 2422it [16:32, 2.10it/s]
 1/1 [=====] - 0s 310ms/step
 2423it [16:32, 2.11it/s]
 1/1 [=====] - 0s 323ms/step
 2424it [16:33, 2.10it/s]
 1/1 [=====] - 0s 285ms/step
 2425it [16:33, 2.04it/s]
 1/1 [=====] - 0s 336ms/step
 2426it [16:34, 2.04it/s]
 1/1 [=====] - 0s 314ms/step
 2427it [16:34, 2.07it/s]
 1/1 [=====] - 0s 302ms/step
 2428it [16:35, 2.07it/s]
 1/1 [=====] - 0s 302ms/step
 2429it [16:35, 2.10it/s]
 1/1 [=====] - 0s 341ms/step
 2430it [16:35, 2.08it/s]
 1/1 [=====] - 0s 338ms/step
 2431it [16:36, 2.03it/s]
 1/1 [=====] - 0s 298ms/step
 2432it [16:36, 2.15it/s]
 1/1 [=====] - 0s 282ms/step
 2433it [16:37, 2.27it/s]
 1/1 [=====] - 0s 302ms/step

2434it [16:37, 2.31it/s]
1/1 [=====] - 0s 287ms/step
2435it [16:38, 2.37it/s]
1/1 [=====] - 0s 331ms/step
2436it [16:38, 2.26it/s]
1/1 [=====] - 0s 289ms/step
2437it [16:39, 2.20it/s]
1/1 [=====] - 0s 332ms/step
2438it [16:39, 2.16it/s]
1/1 [=====] - 0s 301ms/step
2439it [16:40, 2.17it/s]
1/1 [=====] - 0s 323ms/step
2440it [16:40, 2.14it/s]
1/1 [=====] - 0s 294ms/step
2441it [16:40, 2.10it/s]
1/1 [=====] - 0s 304ms/step
2442it [16:41, 2.12it/s]
1/1 [=====] - 0s 317ms/step
2443it [16:41, 2.12it/s]
1/1 [=====] - 0s 332ms/step
2444it [16:42, 2.06it/s]
1/1 [=====] - 0s 324ms/step
2445it [16:42, 2.07it/s]
1/1 [=====] - 0s 302ms/step
2446it [16:43, 2.09it/s]
1/1 [=====] - 0s 305ms/step
2447it [16:43, 2.08it/s]
1/1 [=====] - 0s 311ms/step
2448it [16:44, 2.08it/s]
1/1 [=====] - 0s 275ms/step
2449it [16:44, 2.09it/s]
1/1 [=====] - 0s 294ms/step

2450it [16:45, 2.13it/s]
 1/1 [=====] - 0s 290ms/step
 2451it [16:45, 2.23it/s]
 1/1 [=====] - 0s 283ms/step
 2452it [16:46, 2.30it/s]
 1/1 [=====] - 0s 289ms/step
 2453it [16:46, 2.34it/s]
 1/1 [=====] - 0s 296ms/step
 2454it [16:46, 2.27it/s]
 1/1 [=====] - 0s 339ms/step
 2455it [16:47, 2.19it/s]
 1/1 [=====] - 0s 312ms/step
 2456it [16:47, 2.18it/s]
 1/1 [=====] - 0s 314ms/step
 2457it [16:48, 2.16it/s]
 1/1 [=====] - 0s 351ms/step
 2458it [16:48, 2.10it/s]
 1/1 [=====] - 0s 308ms/step
 2459it [16:49, 2.12it/s]
 1/1 [=====] - 0s 297ms/step
 2460it [16:49, 2.13it/s]
 1/1 [=====] - 0s 312ms/step
 2461it [16:50, 2.04it/s]
 1/1 [=====] - 0s 315ms/step
 2462it [16:50, 2.06it/s]
 1/1 [=====] - 0s 306ms/step
 2463it [16:51, 2.10it/s]
 1/1 [=====] - 0s 330ms/step
 2464it [16:51, 2.09it/s]
 1/1 [=====] - 0s 305ms/step
 2465it [16:52, 2.11it/s]
 1/1 [=====] - 0s 315ms/step

2466it [16:52, 2.05it/s]
 1/1 [=====] - 0s 280ms/step
 2467it [16:53, 2.12it/s]
 1/1 [=====] - 0s 281ms/step
 2468it [16:53, 2.25it/s]
 1/1 [=====] - 0s 312ms/step
 2469it [16:54, 2.19it/s]
 1/1 [=====] - 0s 304ms/step
 2470it [16:54, 2.24it/s]
 1/1 [=====] - 0s 290ms/step
 2471it [16:54, 2.29it/s]
 1/1 [=====] - 0s 304ms/step
 2472it [16:55, 2.24it/s]
 1/1 [=====] - 0s 292ms/step
 2473it [16:55, 2.17it/s]
 1/1 [=====] - 0s 315ms/step
 2474it [16:56, 2.12it/s]
 1/1 [=====] - 0s 301ms/step
 2475it [16:56, 2.14it/s]
 1/1 [=====] - 0s 330ms/step
 2476it [16:57, 2.11it/s]
 1/1 [=====] - 0s 301ms/step
 2477it [16:57, 2.13it/s]
 1/1 [=====] - 0s 312ms/step
 2478it [16:58, 2.08it/s]
 1/1 [=====] - 0s 309ms/step
 2479it [16:58, 2.09it/s]
 1/1 [=====] - 0s 302ms/step
 2480it [16:59, 2.12it/s]
 1/1 [=====] - 0s 332ms/step
 2481it [16:59, 2.09it/s]
 1/1 [=====] - 0s 315ms/step

2482it [17:00, 2.07it/s]
 1/1 [=====] - 0s 343ms/step
 2483it [17:00, 2.05it/s]
 1/1 [=====] - 0s 310ms/step
 2484it [17:01, 2.07it/s]
 1/1 [=====] - 0s 286ms/step
 2485it [17:01, 2.10it/s]
 1/1 [=====] - 0s 286ms/step
 2486it [17:02, 2.21it/s]
 1/1 [=====] - 0s 280ms/step
 2487it [17:02, 2.30it/s]
 1/1 [=====] - 0s 307ms/step
 2488it [17:02, 2.25it/s]
 1/1 [=====] - 0s 310ms/step
 2489it [17:03, 2.26it/s]
 1/1 [=====] - 0s 301ms/step
 2490it [17:03, 2.23it/s]
 1/1 [=====] - 0s 308ms/step
 2491it [17:04, 2.21it/s]
 1/1 [=====] - 0s 302ms/step
 2492it [17:04, 2.14it/s]
 1/1 [=====] - 0s 315ms/step
 2493it [17:05, 2.13it/s]
 1/1 [=====] - 0s 304ms/step
 2494it [17:05, 2.14it/s]
 1/1 [=====] - 0s 330ms/step
 2495it [17:06, 2.11it/s]
 1/1 [=====] - 0s 311ms/step
 2496it [17:06, 2.06it/s]
 1/1 [=====] - 0s 313ms/step
 2497it [17:07, 2.03it/s]
 1/1 [=====] - 0s 312ms/step

2498it [17:07, 2.07it/s]
 1/1 [=====] - 0s 366ms/step
 2499it [17:08, 2.03it/s]
 1/1 [=====] - 0s 315ms/step
 2500it [17:08, 2.04it/s]
 1/1 [=====] - 0s 305ms/step
 2501it [17:09, 2.07it/s]
 1/1 [=====] - 0s 298ms/step
 2502it [17:09, 2.14it/s]
 1/1 [=====] - 0s 282ms/step
 2503it [17:09, 2.18it/s]
 1/1 [=====] - 0s 286ms/step
 2504it [17:10, 2.27it/s]
 1/1 [=====] - 0s 309ms/step
 2505it [17:10, 2.31it/s]
 1/1 [=====] - 0s 310ms/step
 2506it [17:11, 2.26it/s]
 1/1 [=====] - 0s 315ms/step
 2507it [17:11, 2.16it/s]
 1/1 [=====] - 0s 301ms/step
 2508it [17:12, 2.17it/s]
 1/1 [=====] - 0s 313ms/step
 2509it [17:12, 2.11it/s]
 1/1 [=====] - 0s 312ms/step
 2510it [17:13, 2.12it/s]
 1/1 [=====] - 0s 308ms/step
 2511it [17:13, 2.03it/s]
 1/1 [=====] - 0s 322ms/step
 2512it [17:14, 2.05it/s]
 1/1 [=====] - 0s 302ms/step
 2513it [17:14, 2.09it/s]
 1/1 [=====] - 0s 305ms/step

2514it [17:15, 2.10it/s]
 1/1 [=====] - 0s 309ms/step
 2515it [17:15, 2.08it/s]
 1/1 [=====] - 0s 316ms/step
 2516it [17:16, 2.09it/s]
 1/1 [=====] - 0s 304ms/step
 2517it [17:16, 2.11it/s]
 1/1 [=====] - 0s 336ms/step
 2518it [17:17, 2.09it/s]
 1/1 [=====] - 0s 286ms/step
 2519it [17:17, 2.12it/s]
 1/1 [=====] - 0s 279ms/step
 2520it [17:17, 2.25it/s]
 1/1 [=====] - 0s 290ms/step
 2521it [17:18, 2.26it/s]
 1/1 [=====] - 0s 280ms/step
 2522it [17:18, 2.35it/s]
 1/1 [=====] - 0s 315ms/step
 2523it [17:19, 2.28it/s]
 1/1 [=====] - 0s 315ms/step
 2524it [17:19, 2.22it/s]
 1/1 [=====] - 0s 304ms/step
 2525it [17:20, 2.21it/s]
 1/1 [=====] - 0s 312ms/step
 2526it [17:20, 2.16it/s]
 1/1 [=====] - 0s 300ms/step
 2527it [17:21, 2.09it/s]
 1/1 [=====] - 0s 321ms/step
 2528it [17:21, 2.09it/s]
 1/1 [=====] - 0s 304ms/step
 2529it [17:22, 2.09it/s]
 1/1 [=====] - 0s 324ms/step

2530it [17:22, 2.08it/s]
 1/1 [=====] - 0s 289ms/step
 2531it [17:23, 2.06it/s]
 1/1 [=====] - 0s 336ms/step
 2532it [17:23, 2.04it/s]
 1/1 [=====] - 0s 290ms/step
 2533it [17:24, 1.97it/s]
 1/1 [=====] - 0s 304ms/step
 2534it [17:24, 2.03it/s]
 1/1 [=====] - 0s 336ms/step
 2535it [17:25, 1.97it/s]
 1/1 [=====] - 0s 292ms/step
 2536it [17:25, 2.08it/s]
 1/1 [=====] - 0s 298ms/step
 2537it [17:25, 2.18it/s]
 1/1 [=====] - 0s 291ms/step
 2538it [17:26, 2.27it/s]
 1/1 [=====] - 0s 296ms/step
 2539it [17:26, 2.33it/s]
 1/1 [=====] - 0s 285ms/step
 2540it [17:27, 2.27it/s]
 1/1 [=====] - 0s 306ms/step
 2541it [17:27, 2.23it/s]
 1/1 [=====] - 0s 322ms/step
 2542it [17:28, 2.19it/s]
 1/1 [=====] - 0s 313ms/step
 2543it [17:28, 2.16it/s]
 1/1 [=====] - 0s 315ms/step
 2544it [17:29, 2.09it/s]
 1/1 [=====] - 0s 303ms/step
 2545it [17:29, 2.05it/s]
 1/1 [=====] - 0s 311ms/step

2546it [17:30, 2.08it/s]
 1/1 [=====] - 0s 317ms/step
 2547it [17:30, 2.09it/s]
 1/1 [=====] - 0s 310ms/step
 2548it [17:31, 2.04it/s]
 1/1 [=====] - 0s 348ms/step
 2549it [17:31, 2.00it/s]
 1/1 [=====] - 0s 331ms/step
 2550it [17:32, 2.00it/s]
 1/1 [=====] - 0s 324ms/step
 2551it [17:32, 1.98it/s]
 1/1 [=====] - 0s 313ms/step
 2552it [17:33, 2.00it/s]
 1/1 [=====] - 0s 308ms/step
 2553it [17:33, 2.03it/s]
 1/1 [=====] - 0s 310ms/step
 2554it [17:34, 2.10it/s]
 1/1 [=====] - 0s 283ms/step
 2555it [17:34, 2.22it/s]
 1/1 [=====] - 0s 301ms/step
 2556it [17:34, 2.21it/s]
 1/1 [=====] - 0s 286ms/step
 2557it [17:35, 2.24it/s]
 1/1 [=====] - 0s 315ms/step
 2558it [17:35, 2.19it/s]
 1/1 [=====] - 0s 314ms/step
 2559it [17:36, 2.15it/s]
 1/1 [=====] - 0s 313ms/step
 2560it [17:36, 2.09it/s]
 1/1 [=====] - 0s 315ms/step
 2561it [17:37, 2.10it/s]
 1/1 [=====] - 0s 312ms/step

2562it [17:37, 2.11it/s]
 1/1 [=====] - 0s 341ms/step
 2563it [17:38, 2.06it/s]
 1/1 [=====] - 0s 308ms/step
 2564it [17:38, 2.09it/s]
 1/1 [=====] - 0s 322ms/step
 2565it [17:39, 2.09it/s]
 1/1 [=====] - 0s 314ms/step
 2566it [17:39, 2.09it/s]
 1/1 [=====] - 0s 316ms/step
 2567it [17:40, 2.04it/s]
 1/1 [=====] - 0s 319ms/step
 2568it [17:40, 2.06it/s]
 1/1 [=====] - 0s 298ms/step
 2569it [17:41, 2.05it/s]
 1/1 [=====] - 0s 324ms/step
 2570it [17:41, 2.02it/s]
 1/1 [=====] - 0s 287ms/step
 2571it [17:42, 2.15it/s]
 1/1 [=====] - 0s 291ms/step
 2572it [17:42, 2.22it/s]
 1/1 [=====] - 0s 294ms/step
 2573it [17:42, 2.30it/s]
 1/1 [=====] - 0s 275ms/step
 2574it [17:43, 2.28it/s]
 1/1 [=====] - 0s 316ms/step
 2575it [17:43, 2.30it/s]
 1/1 [=====] - 0s 320ms/step
 2576it [17:44, 2.24it/s]
 1/1 [=====] - 0s 322ms/step
 2577it [17:44, 2.18it/s]
 1/1 [=====] - 0s 302ms/step

2578it [17:45, 2.09it/s]
 1/1 [=====] - 0s 319ms/step
 2579it [17:45, 2.09it/s]
 1/1 [=====] - 0s 305ms/step
 2580it [17:46, 2.11it/s]
 1/1 [=====] - 0s 299ms/step
 2581it [17:46, 2.05it/s]
 1/1 [=====] - 0s 324ms/step
 2582it [17:47, 2.05it/s]
 1/1 [=====] - 0s 307ms/step
 2583it [17:47, 2.08it/s]
 1/1 [=====] - 0s 320ms/step
 2584it [17:48, 2.08it/s]
 1/1 [=====] - 0s 319ms/step
 2585it [17:48, 2.05it/s]
 1/1 [=====] - 0s 310ms/step
 2586it [17:49, 2.08it/s]
 1/1 [=====] - 0s 329ms/step
 2587it [17:49, 2.06it/s]
 1/1 [=====] - 0s 288ms/step
 2588it [17:50, 2.14it/s]
 1/1 [=====] - 0s 287ms/step
 2589it [17:50, 2.16it/s]
 1/1 [=====] - 0s 287ms/step
 2590it [17:50, 2.26it/s]
 1/1 [=====] - 0s 340ms/step
 2591it [17:51, 2.24it/s]
 1/1 [=====] - 0s 313ms/step
 2592it [17:51, 2.27it/s]
 1/1 [=====] - 0s 289ms/step
 2593it [17:52, 2.21it/s]
 1/1 [=====] - 0s 307ms/step

2594it [17:52, 2.18it/s]
 1/1 [=====] - 0s 304ms/step
 2595it [17:53, 2.13it/s]
 1/1 [=====] - 0s 315ms/step
 2596it [17:53, 2.12it/s]
 1/1 [=====] - 0s 299ms/step
 2597it [17:54, 2.14it/s]
 1/1 [=====] - 0s 333ms/step
 2598it [17:54, 2.11it/s]
 1/1 [=====] - 0s 309ms/step
 2599it [17:55, 2.05it/s]
 1/1 [=====] - 0s 318ms/step
 2600it [17:55, 2.06it/s]
 1/1 [=====] - 0s 317ms/step
 2601it [17:56, 2.08it/s]
 1/1 [=====] - 0s 323ms/step
 2602it [17:56, 2.04it/s]
 1/1 [=====] - 0s 343ms/step
 2603it [17:57, 1.96it/s]
 1/1 [=====] - 0s 328ms/step
 2604it [17:57, 1.98it/s]
 1/1 [=====] - 0s 320ms/step
 2605it [17:58, 1.94it/s]
 1/1 [=====] - 0s 313ms/step
 2606it [17:58, 2.02it/s]
 1/1 [=====] - 0s 290ms/step
 2607it [17:59, 2.05it/s]
 1/1 [=====] - 0s 281ms/step
 2608it [17:59, 2.16it/s]
 1/1 [=====] - 0s 297ms/step
 2609it [17:59, 2.23it/s]
 1/1 [=====] - 0s 371ms/step

2610it [18:00, 2.11it/s]
 1/1 [=====] - 0s 307ms/step
 2611it [18:00, 2.12it/s]
 1/1 [=====] - 0s 317ms/step
 2612it [18:01, 2.12it/s]
 1/1 [=====] - 0s 311ms/step
 2613it [18:01, 2.11it/s]
 1/1 [=====] - 0s 314ms/step
 2614it [18:02, 2.05it/s]
 1/1 [=====] - 0s 314ms/step
 2615it [18:02, 2.06it/s]
 1/1 [=====] - 0s 371ms/step
 2616it [18:03, 2.00it/s]
 1/1 [=====] - 0s 295ms/step
 2617it [18:03, 2.00it/s]
 1/1 [=====] - 0s 309ms/step
 2618it [18:04, 2.04it/s]
 1/1 [=====] - 0s 337ms/step
 2619it [18:04, 2.03it/s]
 1/1 [=====] - 0s 302ms/step
 2620it [18:05, 2.01it/s]
 1/1 [=====] - 0s 328ms/step
 2621it [18:05, 2.06it/s]
 1/1 [=====] - 0s 281ms/step
 2622it [18:06, 2.19it/s]
 1/1 [=====] - 0s 357ms/step
 2623it [18:06, 2.18it/s]
 1/1 [=====] - 0s 311ms/step
 2624it [18:07, 2.24it/s]
 1/1 [=====] - 0s 287ms/step
 2625it [18:07, 2.31it/s]
 1/1 [=====] - 0s 336ms/step

2626it [18:08, 2.22it/s]
1/1 [=====] - 0s 312ms/step
2627it [18:08, 2.12it/s]
1/1 [=====] - 0s 313ms/step
2628it [18:09, 2.12it/s]
1/1 [=====] - 0s 295ms/step
2629it [18:09, 2.09it/s]
1/1 [=====] - 0s 309ms/step
2630it [18:09, 2.10it/s]
1/1 [=====] - 0s 308ms/step
2631it [18:10, 2.03it/s]
1/1 [=====] - 0s 315ms/step
2632it [18:10, 2.06it/s]
1/1 [=====] - 0s 326ms/step
2633it [18:11, 2.06it/s]
1/1 [=====] - 0s 303ms/step
2634it [18:11, 2.08it/s]
1/1 [=====] - 0s 319ms/step
2635it [18:12, 2.05it/s]
1/1 [=====] - 0s 309ms/step
2636it [18:12, 2.07it/s]
1/1 [=====] - 0s 326ms/step
2637it [18:13, 2.07it/s]
1/1 [=====] - 0s 308ms/step
2638it [18:13, 2.08it/s]
1/1 [=====] - 0s 278ms/step
2639it [18:14, 2.12it/s]
1/1 [=====] - 0s 297ms/step
2640it [18:14, 2.20it/s]
1/1 [=====] - 0s 290ms/step
2641it [18:15, 2.23it/s]
1/1 [=====] - 0s 302ms/step

2642it [18:15, 2.20it/s]
 1/1 [=====] - 0s 314ms/step
 2643it [18:16, 2.17it/s]
 1/1 [=====] - 0s 323ms/step
 2644it [18:16, 2.14it/s]
 1/1 [=====] - 0s 331ms/step
 2645it [18:17, 2.11it/s]
 1/1 [=====] - 0s 302ms/step
 2646it [18:17, 2.07it/s]
 1/1 [=====] - 0s 320ms/step
 2647it [18:18, 2.07it/s]
 1/1 [=====] - 0s 318ms/step
 2648it [18:18, 2.09it/s]
 1/1 [=====] - 0s 314ms/step
 2649it [18:19, 2.09it/s]
 1/1 [=====] - 0s 308ms/step
 2650it [18:19, 2.05it/s]
 1/1 [=====] - 0s 329ms/step
 2651it [18:20, 2.06it/s]
 1/1 [=====] - 0s 336ms/step
 2652it [18:20, 2.05it/s]
 1/1 [=====] - 0s 299ms/step
 2653it [18:20, 2.05it/s]
 1/1 [=====] - 0s 319ms/step
 2654it [18:21, 2.01it/s]
 1/1 [=====] - 0s 299ms/step
 2655it [18:21, 2.07it/s]
 1/1 [=====] - 0s 306ms/step
 2656it [18:22, 2.16it/s]
 1/1 [=====] - 0s 356ms/step
 2657it [18:22, 2.17it/s]
 1/1 [=====] - 0s 298ms/step

2658it [18:23, 2.26it/s]
 1/1 [=====] - 0s 304ms/step
 2659it [18:23, 2.30it/s]
 1/1 [=====] - 0s 291ms/step
 2660it [18:24, 2.35it/s]
 1/1 [=====] - 0s 334ms/step
 2661it [18:24, 2.20it/s]
 1/1 [=====] - 0s 305ms/step
 2662it [18:25, 2.19it/s]
 1/1 [=====] - 0s 315ms/step
 2663it [18:25, 2.16it/s]
 1/1 [=====] - 0s 328ms/step
 2664it [18:25, 2.13it/s]
 1/1 [=====] - 0s 290ms/step
 2665it [18:26, 2.05it/s]
 1/1 [=====] - 0s 318ms/step
 2666it [18:27, 2.07it/s]
 1/1 [=====] - 0s 319ms/step
 2667it [18:27, 2.09it/s]
 1/1 [=====] - 0s 311ms/step
 2668it [18:27, 2.10it/s]
 1/1 [=====] - 0s 298ms/step
 2669it [18:28, 2.05it/s]
 1/1 [=====] - 0s 316ms/step
 2670it [18:28, 2.07it/s]
 1/1 [=====] - 0s 333ms/step
 2671it [18:29, 2.06it/s]
 1/1 [=====] - 0s 311ms/step
 2672it [18:29, 2.08it/s]
 1/1 [=====] - 0s 294ms/step
 2673it [18:30, 2.05it/s]
 1/1 [=====] - 0s 287ms/step

2674it [18:30, 2.16it/s]
 1/1 [=====] - 0s 297ms/step
 2675it [18:31, 2.24it/s]
 1/1 [=====] - 0s 295ms/step
 2676it [18:31, 2.23it/s]
 1/1 [=====] - 0s 283ms/step
 2677it [18:32, 2.26it/s]
 1/1 [=====] - 0s 335ms/step
 2678it [18:32, 2.18it/s]
 1/1 [=====] - 0s 319ms/step
 2679it [18:33, 2.12it/s]
 1/1 [=====] - 0s 338ms/step
 2680it [18:33, 2.01it/s]
 1/1 [=====] - 0s 315ms/step
 2681it [18:34, 2.04it/s]
 1/1 [=====] - 0s 327ms/step
 2682it [18:34, 2.05it/s]
 1/1 [=====] - 0s 314ms/step
 2683it [18:35, 2.06it/s]
 1/1 [=====] - 0s 322ms/step
 2684it [18:35, 2.02it/s]
 1/1 [=====] - 0s 315ms/step
 2685it [18:36, 2.03it/s]
 1/1 [=====] - 0s 334ms/step
 2686it [18:36, 2.00it/s]
 1/1 [=====] - 0s 325ms/step
 2687it [18:37, 2.02it/s]
 1/1 [=====] - 0s 338ms/step
 2688it [18:37, 2.02it/s]
 1/1 [=====] - 0s 311ms/step
 2689it [18:38, 1.99it/s]
 1/1 [=====] - 0s 286ms/step

2690it [18:38, 1.99it/s]
 1/1 [=====] - 0s 307ms/step
 2691it [18:39, 2.10it/s]
 1/1 [=====] - 0s 345ms/step
 2692it [18:39, 2.13it/s]
 1/1 [=====] - 0s 296ms/step
 2693it [18:39, 2.21it/s]
 1/1 [=====] - 0s 315ms/step
 2694it [18:40, 2.23it/s]
 1/1 [=====] - 0s 314ms/step
 2695it [18:40, 2.19it/s]
 1/1 [=====] - 0s 299ms/step
 2696it [18:41, 2.10it/s]
 1/1 [=====] - 0s 311ms/step
 2697it [18:41, 2.11it/s]
 1/1 [=====] - 0s 312ms/step
 2698it [18:42, 2.12it/s]
 1/1 [=====] - 0s 315ms/step
 2699it [18:42, 2.03it/s]
 1/1 [=====] - 0s 316ms/step
 2700it [18:43, 2.05it/s]
 1/1 [=====] - 0s 306ms/step
 2701it [18:43, 2.04it/s]
 1/1 [=====] - 0s 307ms/step
 2702it [18:44, 2.08it/s]
 1/1 [=====] - 0s 308ms/step
 2703it [18:44, 2.05it/s]
 1/1 [=====] - 0s 313ms/step
 2704it [18:45, 2.08it/s]
 1/1 [=====] - 0s 322ms/step
 2705it [18:45, 2.08it/s]
 1/1 [=====] - 0s 320ms/step

2706it [18:46, 2.03it/s]
 1/1 [=====] - 0s 324ms/step
 2707it [18:46, 2.04it/s]
 1/1 [=====] - 0s 295ms/step
 2708it [18:47, 2.16it/s]
 1/1 [=====] - 0s 310ms/step
 2709it [18:47, 2.22it/s]
 1/1 [=====] - 0s 293ms/step
 2710it [18:47, 2.21it/s]
 1/1 [=====] - 0s 301ms/step
 2711it [18:48, 2.27it/s]
 1/1 [=====] - 0s 309ms/step
 2712it [18:48, 2.24it/s]
 1/1 [=====] - 0s 309ms/step
 2713it [18:49, 2.15it/s]
 1/1 [=====] - 0s 298ms/step
 2714it [18:49, 2.09it/s]
 1/1 [=====] - 0s 316ms/step
 2715it [18:50, 2.10it/s]
 1/1 [=====] - 0s 309ms/step
 2716it [18:50, 2.11it/s]
 1/1 [=====] - 0s 309ms/step
 2717it [18:51, 2.11it/s]
 1/1 [=====] - 0s 303ms/step
 2718it [18:51, 2.03it/s]
 1/1 [=====] - 0s 313ms/step
 2719it [18:52, 2.07it/s]
 1/1 [=====] - 0s 329ms/step
 2720it [18:52, 2.07it/s]
 1/1 [=====] - 0s 312ms/step
 2721it [18:53, 2.09it/s]
 1/1 [=====] - 0s 313ms/step

2722it [18:53, 2.04it/s]
 1/1 [=====] - 0s 304ms/step
 2723it [18:54, 2.07it/s]
 1/1 [=====] - 0s 306ms/step
 2724it [18:54, 2.15it/s]
 1/1 [=====] - 0s 273ms/step
 2725it [18:55, 2.20it/s]
 1/1 [=====] - 0s 331ms/step
 2726it [18:55, 2.14it/s]
 1/1 [=====] - 0s 312ms/step
 2727it [18:55, 2.20it/s]
 1/1 [=====] - 0s 323ms/step
 2728it [18:56, 2.20it/s]
 1/1 [=====] - 0s 310ms/step
 2729it [18:56, 2.16it/s]
 1/1 [=====] - 0s 316ms/step
 2730it [18:57, 2.08it/s]
 1/1 [=====] - 0s 304ms/step
 2731it [18:57, 2.09it/s]
 1/1 [=====] - 0s 312ms/step
 2732it [18:58, 2.09it/s]
 1/1 [=====] - 0s 325ms/step
 2733it [18:58, 2.10it/s]
 1/1 [=====] - 0s 307ms/step
 2734it [18:59, 2.06it/s]
 1/1 [=====] - 0s 331ms/step
 2735it [18:59, 2.05it/s]
 1/1 [=====] - 0s 312ms/step
 2736it [19:00, 2.08it/s]
 1/1 [=====] - 0s 303ms/step
 2737it [19:00, 2.05it/s]
 1/1 [=====] - 0s 305ms/step

2738it [19:01, 2.04it/s]
 1/1 [=====] - 0s 312ms/step
 2739it [19:01, 2.07it/s]
 1/1 [=====] - 0s 314ms/step
 2740it [19:02, 2.07it/s]
 1/1 [=====] - 0s 314ms/step
 2741it [19:02, 2.08it/s]
 1/1 [=====] - 0s 299ms/step
 2742it [19:03, 2.17it/s]
 1/1 [=====] - 0s 310ms/step
 2743it [19:03, 2.24it/s]
 1/1 [=====] - 0s 292ms/step
 2744it [19:03, 2.29it/s]
 1/1 [=====] - 0s 330ms/step
 2745it [19:04, 2.17it/s]
 1/1 [=====] - 0s 314ms/step
 2746it [19:04, 2.15it/s]
 1/1 [=====] - 0s 316ms/step
 2747it [19:05, 2.13it/s]
 1/1 [=====] - 0s 305ms/step
 2748it [19:05, 2.08it/s]
 1/1 [=====] - 0s 313ms/step
 2749it [19:06, 2.04it/s]
 1/1 [=====] - 0s 330ms/step
 2750it [19:06, 2.04it/s]
 1/1 [=====] - 0s 313ms/step
 2751it [19:07, 2.01it/s]
 1/1 [=====] - 0s 316ms/step
 2752it [19:07, 2.04it/s]
 1/1 [=====] - 0s 325ms/step
 2753it [19:08, 2.04it/s]
 1/1 [=====] - 0s 300ms/step

2754it [19:08, 2.08it/s]
 1/1 [=====] - 0s 308ms/step
 2755it [19:09, 2.04it/s]
 1/1 [=====] - 0s 316ms/step
 2756it [19:09, 2.07it/s]
 1/1 [=====] - 0s 322ms/step
 2757it [19:10, 2.08it/s]
 1/1 [=====] - 0s 296ms/step
 2758it [19:10, 2.13it/s]
 1/1 [=====] - 0s 295ms/step
 2759it [19:11, 2.16it/s]
 1/1 [=====] - 0s 309ms/step
 2760it [19:11, 2.21it/s]
 1/1 [=====] - 0s 291ms/step
 2761it [19:12, 2.24it/s]
 1/1 [=====] - 0s 309ms/step
 2762it [19:12, 2.27it/s]
 1/1 [=====] - 0s 303ms/step
 2763it [19:13, 2.18it/s]
 1/1 [=====] - 0s 320ms/step
 2764it [19:13, 2.15it/s]
 1/1 [=====] - 0s 326ms/step
 2765it [19:13, 2.13it/s]
 1/1 [=====] - 0s 308ms/step
 2766it [19:14, 2.13it/s]
 1/1 [=====] - 0s 309ms/step
 2767it [19:14, 2.05it/s]
 1/1 [=====] - 0s 313ms/step
 2768it [19:15, 2.08it/s]
 1/1 [=====] - 0s 320ms/step
 2769it [19:15, 2.08it/s]
 1/1 [=====] - 0s 314ms/step

2770it [19:16, 2.10it/s]
 1/1 [=====] - 0s 332ms/step
 2771it [19:16, 2.04it/s]
 1/1 [=====] - 0s 303ms/step
 2772it [19:17, 2.07it/s]
 1/1 [=====] - 0s 307ms/step
 2773it [19:17, 2.04it/s]
 1/1 [=====] - 0s 321ms/step
 2774it [19:18, 2.05it/s]
 1/1 [=====] - 0s 291ms/step
 2775it [19:18, 2.02it/s]
 1/1 [=====] - 0s 293ms/step
 2776it [19:19, 2.13it/s]
 1/1 [=====] - 0s 307ms/step
 2777it [19:19, 2.20it/s]
 1/1 [=====] - 0s 313ms/step
 2778it [19:20, 2.22it/s]
 1/1 [=====] - 0s 309ms/step
 2779it [19:20, 2.27it/s]
 1/1 [=====] - 0s 338ms/step
 2780it [19:21, 2.23it/s]
 1/1 [=====] - 0s 320ms/step
 2781it [19:21, 2.18it/s]
 1/1 [=====] - 0s 310ms/step
 2782it [19:22, 2.11it/s]
 1/1 [=====] - 0s 346ms/step
 2783it [19:22, 2.08it/s]
 1/1 [=====] - 0s 318ms/step
 2784it [19:23, 2.09it/s]
 1/1 [=====] - 0s 316ms/step
 2785it [19:23, 2.05it/s]
 1/1 [=====] - 0s 302ms/step

2786it [19:24, 2.03it/s]
 1/1 [=====] - 0s 315ms/step
 2787it [19:24, 2.05it/s]
 1/1 [=====] - 0s 319ms/step
 2788it [19:24, 2.06it/s]
 1/1 [=====] - 0s 328ms/step
 2789it [19:25, 2.00it/s]
 1/1 [=====] - 0s 313ms/step
 2790it [19:25, 2.03it/s]
 1/1 [=====] - 0s 389ms/step
 2791it [19:26, 1.97it/s]
 1/1 [=====] - 0s 310ms/step
 2792it [19:27, 1.98it/s]
 1/1 [=====] - 0s 320ms/step
 2793it [19:27, 2.06it/s]
 1/1 [=====] - 0s 304ms/step
 2794it [19:27, 2.16it/s]
 1/1 [=====] - 0s 277ms/step
 2795it [19:28, 2.17it/s]
 1/1 [=====] - 0s 300ms/step
 2796it [19:28, 2.25it/s]
 1/1 [=====] - 0s 299ms/step
 2797it [19:29, 2.23it/s]
 1/1 [=====] - 0s 331ms/step
 2798it [19:29, 2.18it/s]
 1/1 [=====] - 0s 311ms/step
 2799it [19:30, 2.11it/s]
 1/1 [=====] - 0s 330ms/step
 2800it [19:30, 2.10it/s]
 1/1 [=====] - 0s 336ms/step
 2801it [19:31, 2.07it/s]
 1/1 [=====] - 0s 308ms/step

2802it [19:31, 2.08it/s]
 1/1 [=====] - 0s 309ms/step
 2803it [19:32, 2.02it/s]
 1/1 [=====] - 0s 314ms/step
 2804it [19:32, 2.05it/s]
 1/1 [=====] - 0s 325ms/step
 2805it [19:33, 2.06it/s]
 1/1 [=====] - 0s 360ms/step
 2806it [19:33, 2.02it/s]
 1/1 [=====] - 0s 369ms/step
 2807it [19:34, 1.97it/s]
 1/1 [=====] - 0s 353ms/step
 2808it [19:34, 1.95it/s]
 1/1 [=====] - 0s 318ms/step
 2809it [19:35, 1.96it/s]
 1/1 [=====] - 0s 303ms/step
 2810it [19:35, 2.02it/s]
 1/1 [=====] - 0s 293ms/step
 2811it [19:36, 2.15it/s]
 1/1 [=====] - 0s 296ms/step
 2812it [19:36, 2.24it/s]
 1/1 [=====] - 0s 300ms/step
 2813it [19:36, 2.30it/s]
 1/1 [=====] - 0s 307ms/step
 2814it [19:37, 2.25it/s]
 1/1 [=====] - 0s 308ms/step
 2815it [19:37, 2.19it/s]
 1/1 [=====] - 0s 328ms/step
 2816it [19:38, 2.15it/s]
 1/1 [=====] - 0s 320ms/step
 2817it [19:38, 2.14it/s]
 1/1 [=====] - 0s 306ms/step

2818it [19:39, 2.07it/s]
 1/1 [=====] - 0s 327ms/step
 2819it [19:39, 2.07it/s]
 1/1 [=====] - 0s 323ms/step
 2820it [19:40, 2.07it/s]
 1/1 [=====] - 0s 314ms/step
 2821it [19:40, 1.98it/s]
 1/1 [=====] - 0s 326ms/step
 2822it [19:41, 2.01it/s]
 1/1 [=====] - 0s 314ms/step
 2823it [19:41, 2.05it/s]
 1/1 [=====] - 0s 312ms/step
 2824it [19:42, 2.07it/s]
 1/1 [=====] - 0s 322ms/step
 2825it [19:42, 2.01it/s]
 1/1 [=====] - 0s 301ms/step
 2826it [19:43, 2.12it/s]
 1/1 [=====] - 0s 306ms/step
 2827it [19:43, 2.20it/s]
 1/1 [=====] - 0s 296ms/step
 2828it [19:44, 2.28it/s]
 1/1 [=====] - 0s 283ms/step
 2829it [19:44, 2.24it/s]
 1/1 [=====] - 0s 331ms/step
 2830it [19:44, 2.23it/s]
 1/1 [=====] - 0s 305ms/step
 2831it [19:45, 2.21it/s]
 1/1 [=====] - 0s 323ms/step
 2832it [19:45, 2.16it/s]
 1/1 [=====] - 0s 316ms/step
 2833it [19:46, 2.01it/s]
 1/1 [=====] - 0s 329ms/step

2834it [19:46, 2.03it/s]
 1/1 [=====] - 0s 331ms/step
 2835it [19:47, 2.04it/s]
 1/1 [=====] - 0s 332ms/step
 2836it [19:47, 1.99it/s]
 1/1 [=====] - 0s 305ms/step
 2837it [19:48, 2.04it/s]
 1/1 [=====] - 0s 314ms/step
 2838it [19:48, 2.06it/s]
 1/1 [=====] - 0s 309ms/step
 2839it [19:49, 2.08it/s]
 1/1 [=====] - 0s 308ms/step
 2840it [19:49, 2.04it/s]
 1/1 [=====] - 0s 320ms/step
 2841it [19:50, 2.06it/s]
 1/1 [=====] - 0s 328ms/step
 2842it [19:50, 2.06it/s]
 1/1 [=====] - 0s 314ms/step
 2843it [19:51, 2.08it/s]
 1/1 [=====] - 0s 284ms/step
 2844it [19:51, 2.10it/s]
 1/1 [=====] - 0s 280ms/step
 2845it [19:52, 2.15it/s]
 1/1 [=====] - 0s 302ms/step
 2846it [19:52, 2.23it/s]
 1/1 [=====] - 0s 301ms/step
 2847it [19:53, 2.29it/s]
 1/1 [=====] - 0s 328ms/step
 2848it [19:53, 2.16it/s]
 1/1 [=====] - 0s 312ms/step
 2849it [19:54, 2.16it/s]
 1/1 [=====] - 0s 310ms/step

2850it [19:54, 2.15it/s]
 1/1 [=====] - 0s 323ms/step
 2851it [19:54, 2.13it/s]
 1/1 [=====] - 0s 316ms/step
 2852it [19:55, 2.08it/s]
 1/1 [=====] - 0s 304ms/step
 2853it [19:55, 2.09it/s]
 1/1 [=====] - 0s 332ms/step
 2854it [19:56, 2.08it/s]
 1/1 [=====] - 0s 331ms/step
 2855it [19:56, 2.07it/s]
 1/1 [=====] - 0s 321ms/step
 2856it [19:57, 2.03it/s]
 1/1 [=====] - 0s 321ms/step
 2857it [19:57, 1.99it/s]
 1/1 [=====] - 0s 315ms/step
 2858it [19:58, 2.01it/s]
 1/1 [=====] - 0s 352ms/step
 2859it [19:58, 1.95it/s]
 1/1 [=====] - 0s 308ms/step
 2860it [19:59, 2.02it/s]
 1/1 [=====] - 0s 313ms/step
 2861it [19:59, 2.11it/s]
 1/1 [=====] - 0s 304ms/step
 2862it [20:00, 2.19it/s]
 1/1 [=====] - 0s 303ms/step
 2863it [20:00, 2.18it/s]
 1/1 [=====] - 0s 303ms/step
 2864it [20:01, 2.25it/s]
 1/1 [=====] - 0s 315ms/step
 2865it [20:01, 2.22it/s]
 1/1 [=====] - 0s 357ms/step

2866it [20:02, 2.12it/s]
1/1 [=====] - 0s 329ms/step
2867it [20:02, 2.09it/s]
1/1 [=====] - 0s 318ms/step
2868it [20:03, 2.09it/s]
1/1 [=====] - 0s 314ms/step
2869it [20:03, 2.06it/s]
1/1 [=====] - 0s 312ms/step
2870it [20:04, 2.02it/s]
1/1 [=====] - 0s 327ms/step
2871it [20:04, 2.03it/s]
1/1 [=====] - 0s 314ms/step
2872it [20:05, 2.06it/s]
1/1 [=====] - 0s 334ms/step
2873it [20:05, 2.05it/s]
1/1 [=====] - 0s 320ms/step
2874it [20:06, 2.01it/s]
1/1 [=====] - 0s 316ms/step
2875it [20:06, 2.04it/s]
1/1 [=====] - 0s 320ms/step
2876it [20:07, 2.06it/s]
1/1 [=====] - 0s 325ms/step
2877it [20:07, 2.06it/s]
1/1 [=====] - 0s 290ms/step
2878it [20:07, 2.10it/s]
1/1 [=====] - 0s 323ms/step
2879it [20:08, 2.15it/s]
1/1 [=====] - 0s 315ms/step
2880it [20:08, 2.20it/s]
1/1 [=====] - 0s 280ms/step
2881it [20:09, 2.24it/s]
1/1 [=====] - 0s 339ms/step

2882it [20:09, 2.18it/s]
 1/1 [=====] - 0s 319ms/step
 2883it [20:10, 2.15it/s]
 1/1 [=====] - 0s 327ms/step
 2884it [20:10, 2.13it/s]
 1/1 [=====] - 0s 339ms/step
 2885it [20:11, 2.08it/s]
 1/1 [=====] - 0s 312ms/step
 2886it [20:11, 2.01it/s]
 1/1 [=====] - 0s 324ms/step
 2887it [20:12, 2.03it/s]
 1/1 [=====] - 0s 369ms/step
 2888it [20:12, 1.99it/s]
 1/1 [=====] - 0s 327ms/step
 2889it [20:13, 2.02it/s]
 1/1 [=====] - 0s 313ms/step
 2890it [20:13, 2.06it/s]
 1/1 [=====] - 0s 326ms/step
 2891it [20:14, 2.06it/s]
 1/1 [=====] - 0s 328ms/step
 2892it [20:14, 2.02it/s]
 1/1 [=====] - 0s 318ms/step
 2893it [20:15, 1.99it/s]
 1/1 [=====] - 0s 321ms/step
 2894it [20:15, 2.02it/s]
 1/1 [=====] - 0s 290ms/step
 2895it [20:16, 2.14it/s]
 1/1 [=====] - 0s 298ms/step
 2896it [20:16, 2.13it/s]
 1/1 [=====] - 0s 300ms/step
 2897it [20:17, 2.21it/s]
 1/1 [=====] - 0s 310ms/step

2898it [20:17, 2.25it/s]
 1/1 [=====] - 0s 381ms/step
 2899it [20:17, 2.16it/s]
 1/1 [=====] - 0s 322ms/step
 2900it [20:18, 2.14it/s]
 1/1 [=====] - 0s 337ms/step
 2901it [20:18, 2.09it/s]
 1/1 [=====] - 0s 317ms/step
 2902it [20:19, 2.10it/s]
 1/1 [=====] - 0s 334ms/step
 2903it [20:19, 2.01it/s]
 1/1 [=====] - 0s 317ms/step
 2904it [20:20, 2.04it/s]
 1/1 [=====] - 0s 319ms/step
 2905it [20:20, 2.01it/s]
 1/1 [=====] - 0s 387ms/step
 2906it [20:21, 1.95it/s]
 1/1 [=====] - 0s 342ms/step
 2907it [20:21, 1.97it/s]
 1/1 [=====] - 0s 318ms/step
 2908it [20:22, 2.01it/s]
 1/1 [=====] - 0s 309ms/step
 2909it [20:22, 1.99it/s]
 1/1 [=====] - 0s 311ms/step
 2910it [20:23, 2.01it/s]
 1/1 [=====] - 0s 331ms/step
 2911it [20:23, 1.99it/s]
 1/1 [=====] - 0s 309ms/step
 2912it [20:24, 2.09it/s]
 1/1 [=====] - 0s 300ms/step
 2913it [20:24, 2.09it/s]
 1/1 [=====] - 0s 309ms/step

2914it [20:25, 2.17it/s]
 1/1 [=====] - 0s 310ms/step
 2915it [20:25, 2.23it/s]
 1/1 [=====] - 0s 331ms/step
 2916it [20:26, 2.17it/s]
 1/1 [=====] - 0s 305ms/step
 2917it [20:26, 2.06it/s]
 1/1 [=====] - 0s 320ms/step
 2918it [20:27, 2.08it/s]
 1/1 [=====] - 0s 340ms/step
 2919it [20:27, 2.06it/s]
 1/1 [=====] - 0s 329ms/step
 2920it [20:28, 2.06it/s]
 1/1 [=====] - 0s 353ms/step
 2921it [20:28, 1.98it/s]
 1/1 [=====] - 0s 321ms/step
 2922it [20:29, 2.00it/s]
 1/1 [=====] - 0s 327ms/step
 2923it [20:29, 2.02it/s]
 1/1 [=====] - 0s 321ms/step
 2924it [20:30, 2.04it/s]
 1/1 [=====] - 0s 326ms/step
 2925it [20:30, 2.00it/s]
 1/1 [=====] - 0s 324ms/step
 2926it [20:31, 2.03it/s]
 1/1 [=====] - 0s 322ms/step
 2927it [20:31, 2.04it/s]
 1/1 [=====] - 0s 336ms/step
 2928it [20:32, 2.03it/s]
 1/1 [=====] - 0s 273ms/step
 2929it [20:32, 2.07it/s]
 1/1 [=====] - 0s 319ms/step

2930it [20:33, 2.14it/s]
 1/1 [=====] - 0s 302ms/step
 2931it [20:33, 2.21it/s]
 1/1 [=====] - 0s 363ms/step
 2932it [20:33, 2.19it/s]
 1/1 [=====] - 0s 333ms/step
 2933it [20:34, 2.13it/s]
 1/1 [=====] - 0s 328ms/step
 2934it [20:34, 2.11it/s]
 1/1 [=====] - 0s 354ms/step
 2935it [20:35, 1.99it/s]
 1/1 [=====] - 0s 345ms/step
 2936it [20:36, 1.97it/s]
 1/1 [=====] - 0s 384ms/step
 2937it [20:36, 1.93it/s]
 1/1 [=====] - 0s 318ms/step
 2938it [20:37, 1.98it/s]
 1/1 [=====] - 0s 367ms/step
 2939it [20:37, 1.95it/s]
 1/1 [=====] - 0s 327ms/step
 2940it [20:38, 1.99it/s]
 1/1 [=====] - 0s 315ms/step
 2941it [20:38, 1.99it/s]
 1/1 [=====] - 0s 334ms/step
 2942it [20:39, 2.00it/s]
 1/1 [=====] - 0s 336ms/step
 2943it [20:39, 1.97it/s]
 1/1 [=====] - 0s 332ms/step
 2944it [20:40, 1.99it/s]
 1/1 [=====] - 0s 297ms/step
 2945it [20:40, 2.10it/s]
 1/1 [=====] - 0s 314ms/step

2946it [20:40, 2.17it/s]
 1/1 [=====] - 0s 312ms/step
 2947it [20:41, 2.18it/s]
 1/1 [=====] - 0s 330ms/step
 2948it [20:41, 2.21it/s]
 1/1 [=====] - 0s 317ms/step
 2949it [20:42, 2.16it/s]
 1/1 [=====] - 0s 323ms/step
 2950it [20:42, 2.14it/s]
 1/1 [=====] - 0s 299ms/step
 2951it [20:43, 2.08it/s]
 1/1 [=====] - 0s 330ms/step
 2952it [20:43, 2.08it/s]
 1/1 [=====] - 0s 323ms/step
 2953it [20:44, 2.03it/s]
 1/1 [=====] - 0s 380ms/step
 2954it [20:44, 1.98it/s]
 1/1 [=====] - 0s 332ms/step
 2955it [20:45, 2.00it/s]
 1/1 [=====] - 0s 319ms/step
 2956it [20:45, 2.04it/s]
 1/1 [=====] - 0s 335ms/step
 2957it [20:46, 2.04it/s]
 1/1 [=====] - 0s 334ms/step
 2958it [20:46, 2.00it/s]
 1/1 [=====] - 0s 326ms/step
 2959it [20:47, 2.02it/s]
 1/1 [=====] - 0s 343ms/step
 2960it [20:47, 2.00it/s]
 1/1 [=====] - 0s 389ms/step
 2961it [20:48, 1.98it/s]
 1/1 [=====] - 0s 314ms/step

2962it [20:48, 2.07it/s]
 1/1 [=====] - 0s 293ms/step
 2963it [20:49, 2.17it/s]
 1/1 [=====] - 0s 342ms/step
 2964it [20:49, 2.18it/s]
 1/1 [=====] - 0s 289ms/step
 2965it [20:50, 2.13it/s]
 1/1 [=====] - 0s 348ms/step
 2966it [20:50, 2.09it/s]
 1/1 [=====] - 0s 319ms/step
 2967it [20:51, 2.09it/s]
 1/1 [=====] - 0s 377ms/step
 2968it [20:51, 2.02it/s]
 1/1 [=====] - 0s 330ms/step
 2969it [20:52, 2.03it/s]
 1/1 [=====] - 0s 318ms/step
 2970it [20:52, 2.06it/s]
 1/1 [=====] - 0s 338ms/step
 2971it [20:53, 2.04it/s]
 1/1 [=====] - 0s 321ms/step
 2972it [20:53, 2.02it/s]
 1/1 [=====] - 0s 327ms/step
 2973it [20:54, 2.04it/s]
 1/1 [=====] - 0s 322ms/step
 2974it [20:54, 2.06it/s]
 1/1 [=====] - 0s 322ms/step
 2975it [20:54, 2.07it/s]
 1/1 [=====] - 0s 327ms/step
 2976it [20:55, 2.02it/s]
 1/1 [=====] - 0s 307ms/step
 2977it [20:55, 2.02it/s]
 1/1 [=====] - 0s 315ms/step

2978it [20:56, 2.07it/s]
 1/1 [=====] - 0s 293ms/step
 2979it [20:56, 2.16it/s]
 1/1 [=====] - 0s 307ms/step
 2980it [20:57, 2.16it/s]
 1/1 [=====] - 0s 308ms/step
 2981it [20:57, 2.22it/s]
 1/1 [=====] - 0s 302ms/step
 2982it [20:58, 2.27it/s]
 1/1 [=====] - 0s 339ms/step
 2983it [20:58, 2.18it/s]
 1/1 [=====] - 0s 340ms/step
 2984it [20:59, 2.06it/s]
 1/1 [=====] - 0s 353ms/step
 2985it [20:59, 1.99it/s]
 1/1 [=====] - 0s 352ms/step
 2986it [21:00, 1.95it/s]
 1/1 [=====] - 0s 340ms/step
 2987it [21:00, 1.93it/s]
 1/1 [=====] - 0s 337ms/step
 2988it [21:01, 1.94it/s]
 1/1 [=====] - 0s 337ms/step
 2989it [21:01, 1.89it/s]
 1/1 [=====] - 0s 329ms/step
 2990it [21:02, 1.91it/s]
 1/1 [=====] - 0s 322ms/step
 2991it [21:02, 1.95it/s]
 1/1 [=====] - 0s 317ms/step
 2992it [21:03, 1.99it/s]
 1/1 [=====] - 0s 318ms/step
 2993it [21:03, 2.02it/s]
 1/1 [=====] - 0s 307ms/step

2994it [21:04, 1.99it/s]
 1/1 [=====] - 0s 325ms/step
 2995it [21:04, 2.07it/s]
 1/1 [=====] - 0s 302ms/step
 2996it [21:05, 2.15it/s]
 1/1 [=====] - 0s 320ms/step
 2997it [21:05, 2.21it/s]
 1/1 [=====] - 0s 358ms/step
 2998it [21:06, 2.19it/s]
 1/1 [=====] - 0s 307ms/step
 2999it [21:06, 2.24it/s]
 1/1 [=====] - 0s 324ms/step
 3000it [21:07, 2.19it/s]
 1/1 [=====] - 0s 353ms/step
 3001it [21:07, 2.07it/s]
 1/1 [=====] - 0s 358ms/step
 3002it [21:08, 2.02it/s]
 1/1 [=====] - 0s 336ms/step
 3003it [21:08, 2.02it/s]
 1/1 [=====] - 0s 327ms/step
 3004it [21:09, 2.04it/s]
 1/1 [=====] - 0s 330ms/step
 3005it [21:09, 2.04it/s]
 1/1 [=====] - 0s 389ms/step
 3006it [21:10, 1.98it/s]
 1/1 [=====] - 0s 325ms/step
 3007it [21:10, 2.00it/s]
 1/1 [=====] - 0s 332ms/step
 3008it [21:11, 2.02it/s]
 1/1 [=====] - 0s 342ms/step
 3009it [21:11, 1.98it/s]
 1/1 [=====] - 0s 331ms/step

3010it [21:12, 1.98it/s]
 1/1 [=====] - 0s 350ms/step
 3011it [21:12, 1.95it/s]
 1/1 [=====] - 0s 325ms/step
 3012it [21:13, 2.03it/s]
 1/1 [=====] - 0s 307ms/step
 3013it [21:13, 2.03it/s]
 1/1 [=====] - 0s 315ms/step
 3014it [21:14, 2.10it/s]
 1/1 [=====] - 0s 318ms/step
 3015it [21:14, 2.17it/s]
 1/1 [=====] - 0s 360ms/step
 3016it [21:14, 2.10it/s]
 1/1 [=====] - 0s 370ms/step
 3017it [21:15, 2.03it/s]
 1/1 [=====] - 0s 331ms/step
 3018it [21:15, 2.04it/s]
 1/1 [=====] - 0s 333ms/step
 3019it [21:16, 2.05it/s]
 1/1 [=====] - 0s 333ms/step
 3020it [21:16, 2.05it/s]
 1/1 [=====] - 0s 375ms/step
 3021it [21:17, 1.99it/s]
 1/1 [=====] - 0s 341ms/step
 3022it [21:17, 2.00it/s]
 1/1 [=====] - 0s 330ms/step
 3023it [21:18, 2.02it/s]
 1/1 [=====] - 0s 327ms/step
 3024it [21:18, 2.03it/s]
 1/1 [=====] - 0s 342ms/step
 3025it [21:19, 1.94it/s]
 1/1 [=====] - 0s 319ms/step

3026it [21:19, 1.99it/s]
 1/1 [=====] - 0s 343ms/step
 3027it [21:20, 2.00it/s]
 1/1 [=====] - 0s 327ms/step
 3028it [21:20, 2.08it/s]
 1/1 [=====] - 0s 360ms/step
 3029it [21:21, 2.10it/s]
 1/1 [=====] - 0s 330ms/step
 3030it [21:21, 2.15it/s]
 1/1 [=====] - 0s 299ms/step
 3031it [21:22, 2.24it/s]
 1/1 [=====] - 0s 333ms/step
 3032it [21:22, 2.23it/s]
 1/1 [=====] - 0s 373ms/step
 3033it [21:23, 2.11it/s]
 1/1 [=====] - 0s 335ms/step
 3034it [21:23, 2.09it/s]
 1/1 [=====] - 0s 321ms/step
 3035it [21:24, 2.09it/s]
 1/1 [=====] - 0s 351ms/step
 3036it [21:24, 2.03it/s]
 1/1 [=====] - 0s 329ms/step
 3037it [21:25, 1.98it/s]
 1/1 [=====] - 0s 373ms/step
 3038it [21:25, 1.95it/s]
 1/1 [=====] - 0s 349ms/step
 3039it [21:26, 1.96it/s]
 1/1 [=====] - 0s 316ms/step
 3040it [21:26, 2.00it/s]
 1/1 [=====] - 0s 330ms/step
 3041it [21:27, 1.96it/s]
 1/1 [=====] - 0s 338ms/step

3042it [21:27, 1.98it/s]
 1/1 [=====] - 0s 333ms/step
 3043it [21:28, 2.01it/s]
 1/1 [=====] - 0s 333ms/step
 3044it [21:28, 1.99it/s]
 1/1 [=====] - 0s 320ms/step
 3045it [21:29, 2.08it/s]
 1/1 [=====] - 0s 306ms/step
 3046it [21:29, 2.17it/s]
 1/1 [=====] - 0s 300ms/step
 3047it [21:30, 2.17it/s]
 1/1 [=====] - 0s 330ms/step
 3048it [21:30, 2.21it/s]
 1/1 [=====] - 0s 307ms/step
 3049it [21:31, 2.12it/s]
 1/1 [=====] - 0s 333ms/step
 3050it [21:31, 2.10it/s]
 1/1 [=====] - 0s 324ms/step
 3051it [21:31, 2.09it/s]
 1/1 [=====] - 0s 383ms/step
 3052it [21:32, 2.00it/s]
 1/1 [=====] - 0s 328ms/step
 3053it [21:33, 2.01it/s]
 1/1 [=====] - 0s 312ms/step
 3054it [21:33, 2.05it/s]
 1/1 [=====] - 0s 323ms/step
 3055it [21:33, 2.05it/s]
 1/1 [=====] - 0s 397ms/step
 3056it [21:34, 1.98it/s]
 1/1 [=====] - 0s 337ms/step
 3057it [21:35, 1.99it/s]
 1/1 [=====] - 0s 336ms/step

3058it [21:35, 2.01it/s]
 1/1 [=====] - 0s 341ms/step
 3059it [21:35, 2.01it/s]
 1/1 [=====] - 0s 437ms/step
 3060it [21:36, 1.89it/s]
 1/1 [=====] - 0s 340ms/step
 3061it [21:37, 1.90it/s]
 1/1 [=====] - 0s 301ms/step
 3062it [21:37, 2.02it/s]
 1/1 [=====] - 0s 308ms/step
 3063it [21:37, 2.13it/s]
 1/1 [=====] - 0s 331ms/step
 3064it [21:38, 2.12it/s]
 1/1 [=====] - 0s 300ms/step
 3065it [21:38, 2.19it/s]
 1/1 [=====] - 0s 345ms/step
 3066it [21:39, 2.14it/s]
 1/1 [=====] - 0s 321ms/step
 3067it [21:39, 2.12it/s]
 1/1 [=====] - 0s 380ms/step
 3068it [21:40, 2.04it/s]
 1/1 [=====] - 0s 333ms/step
 3069it [21:40, 2.03it/s]
 1/1 [=====] - 0s 340ms/step
 3070it [21:41, 2.02it/s]
 1/1 [=====] - 0s 324ms/step
 3071it [21:41, 2.03it/s]
 1/1 [=====] - 0s 370ms/step
 3072it [21:42, 1.98it/s]
 1/1 [=====] - 0s 310ms/step
 3073it [21:42, 1.98it/s]
 1/1 [=====] - 0s 333ms/step

3074it [21:43, 2.01it/s]
 1/1 [=====] - 0s 336ms/step
 3075it [21:43, 2.00it/s]
 1/1 [=====] - 0s 369ms/step
 3076it [21:44, 1.97it/s]
 1/1 [=====] - 0s 352ms/step
 3077it [21:44, 1.97it/s]
 1/1 [=====] - 0s 313ms/step
 3078it [21:45, 2.08it/s]
 1/1 [=====] - 0s 299ms/step
 3079it [21:45, 2.17it/s]
 1/1 [=====] - 0s 372ms/step
 3080it [21:46, 2.14it/s]
 1/1 [=====] - 0s 318ms/step
 3081it [21:46, 2.21it/s]
 1/1 [=====] - 0s 333ms/step
 3082it [21:47, 2.23it/s]
 1/1 [=====] - 0s 346ms/step
 3083it [21:47, 2.15it/s]
 1/1 [=====] - 0s 374ms/step
 3084it [21:48, 2.02it/s]
 1/1 [=====] - 0s 319ms/step
 3085it [21:48, 1.99it/s]
 1/1 [=====] - 0s 342ms/step
 3086it [21:49, 2.00it/s]
 1/1 [=====] - 0s 316ms/step
 3087it [21:49, 1.96it/s]
 1/1 [=====] - 0s 330ms/step
 3088it [21:50, 1.99it/s]
 1/1 [=====] - 0s 353ms/step
 3089it [21:50, 1.98it/s]
 1/1 [=====] - 0s 346ms/step

3090it [21:51, 1.95it/s]
 1/1 [=====] - 0s 339ms/step
 3091it [21:51, 1.94it/s]
 1/1 [=====] - 0s 324ms/step
 3092it [21:52, 1.98it/s]
 1/1 [=====] - 0s 338ms/step
 3093it [21:52, 1.99it/s]
 1/1 [=====] - 0s 322ms/step
 3094it [21:53, 1.99it/s]
 1/1 [=====] - 0s 333ms/step
 3095it [21:53, 2.07it/s]
 1/1 [=====] - 0s 318ms/step
 3096it [21:54, 2.14it/s]
 1/1 [=====] - 0s 288ms/step
 3097it [21:54, 2.12it/s]
 1/1 [=====] - 0s 310ms/step
 3098it [21:54, 2.20it/s]
 1/1 [=====] - 0s 325ms/step
 3099it [21:55, 2.22it/s]
 1/1 [=====] - 0s 319ms/step
 3100it [21:55, 2.11it/s]
 1/1 [=====] - 0s 317ms/step
 3101it [21:56, 2.11it/s]
 1/1 [=====] - 0s 332ms/step
 3102it [21:56, 2.09it/s]
 1/1 [=====] - 0s 339ms/step
 3103it [21:57, 2.07it/s]
 1/1 [=====] - 0s 391ms/step
 3104it [21:57, 1.99it/s]
 1/1 [=====] - 0s 336ms/step
 3105it [21:58, 2.01it/s]
 1/1 [=====] - 0s 333ms/step

3106it [21:58, 2.02it/s]
 1/1 [=====] - 0s 335ms/step
 3107it [21:59, 2.03it/s]
 1/1 [=====] - 0s 420ms/step
 3108it [22:00, 1.92it/s]
 1/1 [=====] - 0s 353ms/step
 3109it [22:00, 1.88it/s]
 1/1 [=====] - 0s 322ms/step
 3110it [22:01, 1.94it/s]
 1/1 [=====] - 0s 320ms/step
 3111it [22:01, 2.03it/s]
 1/1 [=====] - 0s 397ms/step
 3112it [22:01, 2.01it/s]
 1/1 [=====] - 0s 313ms/step
 3113it [22:02, 2.10it/s]
 1/1 [=====] - 0s 321ms/step
 3114it [22:02, 2.16it/s]
 1/1 [=====] - 0s 322ms/step
 3115it [22:03, 2.19it/s]
 1/1 [=====] - 0s 376ms/step
 3116it [22:03, 2.07it/s]
 1/1 [=====] - 0s 339ms/step
 3117it [22:04, 2.05it/s]
 1/1 [=====] - 0s 341ms/step
 3118it [22:04, 2.03it/s]
 1/1 [=====] - 0s 339ms/step
 3119it [22:05, 2.02it/s]
 1/1 [=====] - 0s 388ms/step
 3120it [22:05, 1.96it/s]
 1/1 [=====] - 0s 320ms/step
 3121it [22:06, 1.96it/s]
 1/1 [=====] - 0s 335ms/step

3122it [22:06, 1.98it/s]
 1/1 [=====] - 0s 335ms/step
 3123it [22:07, 1.96it/s]
 1/1 [=====] - 0s 394ms/step
 3124it [22:07, 1.92it/s]
 1/1 [=====] - 0s 344ms/step
 3125it [22:08, 1.95it/s]
 1/1 [=====] - 0s 343ms/step
 3126it [22:08, 1.97it/s]
 1/1 [=====] - 0s 307ms/step
 3127it [22:09, 2.04it/s]
 1/1 [=====] - 0s 354ms/step
 3128it [22:09, 2.06it/s]
 1/1 [=====] - 0s 331ms/step
 3129it [22:10, 2.12it/s]
 1/1 [=====] - 0s 316ms/step
 3130it [22:10, 2.19it/s]
 1/1 [=====] - 0s 317ms/step
 3131it [22:11, 2.24it/s]
 1/1 [=====] - 0s 424ms/step
 3132it [22:11, 2.03it/s]
 1/1 [=====] - 0s 325ms/step
 3133it [22:12, 2.00it/s]
 1/1 [=====] - 0s 335ms/step
 3134it [22:12, 2.01it/s]
 1/1 [=====] - 0s 325ms/step
 3135it [22:13, 2.03it/s]
 1/1 [=====] - 0s 394ms/step
 3136it [22:13, 1.96it/s]
 1/1 [=====] - 0s 329ms/step
 3137it [22:14, 1.99it/s]
 1/1 [=====] - 0s 324ms/step

3138it [22:14, 2.01it/s]
 1/1 [=====] - 0s 339ms/step
 3139it [22:15, 2.01it/s]
 1/1 [=====] - 0s 400ms/step
 3140it [22:15, 1.94it/s]
 1/1 [=====] - 0s 331ms/step
 3141it [22:16, 1.97it/s]
 1/1 [=====] - 0s 340ms/step
 3142it [22:16, 1.99it/s]
 1/1 [=====] - 0s 351ms/step
 3143it [22:17, 1.99it/s]
 1/1 [=====] - 0s 384ms/step
 3144it [22:17, 2.00it/s]
 1/1 [=====] - 0s 310ms/step
 3145it [22:18, 2.07it/s]
 1/1 [=====] - 0s 311ms/step
 3146it [22:18, 2.14it/s]
 1/1 [=====] - 0s 315ms/step
 3147it [22:19, 2.11it/s]
 1/1 [=====] - 0s 338ms/step
 3148it [22:19, 2.15it/s]
 1/1 [=====] - 0s 330ms/step
 3149it [22:20, 2.13it/s]
 1/1 [=====] - 0s 339ms/step
 3150it [22:20, 2.01it/s]
 1/1 [=====] - 0s 335ms/step
 3151it [22:21, 2.02it/s]
 1/1 [=====] - 0s 337ms/step
 3152it [22:21, 2.02it/s]
 1/1 [=====] - 0s 421ms/step
 3153it [22:22, 1.92it/s]
 1/1 [=====] - 0s 336ms/step

3154it [22:22, 1.94it/s]
 1/1 [=====] - 0s 318ms/step
 3155it [22:23, 1.98it/s]
 1/1 [=====] - 0s 356ms/step
 3156it [22:23, 1.95it/s]
 1/1 [=====] - 0s 323ms/step
 3157it [22:24, 1.91it/s]
 1/1 [=====] - 0s 332ms/step
 3158it [22:24, 1.95it/s]
 1/1 [=====] - 0s 313ms/step
 3159it [22:25, 2.00it/s]
 1/1 [=====] - 0s 334ms/step
 3160it [22:25, 1.97it/s]
 1/1 [=====] - 0s 316ms/step
 3161it [22:26, 2.08it/s]
 1/1 [=====] - 0s 322ms/step
 3162it [22:26, 2.13it/s]
 1/1 [=====] - 0s 329ms/step
 3163it [22:27, 2.13it/s]
 1/1 [=====] - 0s 321ms/step
 3164it [22:27, 2.18it/s]
 1/1 [=====] - 0s 321ms/step
 3165it [22:27, 2.16it/s]
 1/1 [=====] - 0s 337ms/step
 3166it [22:28, 2.07it/s]
 1/1 [=====] - 0s 326ms/step
 3167it [22:29, 2.07it/s]
 1/1 [=====] - 0s 340ms/step
 3168it [22:29, 2.06it/s]
 1/1 [=====] - 0s 381ms/step
 3169it [22:30, 1.96it/s]
 1/1 [=====] - 0s 328ms/step

3170it [22:30, 2.00it/s]
 1/1 [=====] - 0s 327ms/step
 3171it [22:31, 2.03it/s]
 1/1 [=====] - 0s 331ms/step
 3172it [22:31, 2.04it/s]
 1/1 [=====] - 0s 321ms/step
 3173it [22:31, 2.05it/s]
 1/1 [=====] - 0s 410ms/step
 3174it [22:32, 1.96it/s]
 1/1 [=====] - 0s 328ms/step
 3175it [22:33, 1.98it/s]
 1/1 [=====] - 0s 354ms/step
 3176it [22:33, 1.97it/s]
 1/1 [=====] - 0s 313ms/step
 3177it [22:33, 2.06it/s]
 1/1 [=====] - 0s 377ms/step
 3178it [22:34, 2.05it/s]
 1/1 [=====] - 0s 327ms/step
 3179it [22:34, 2.12it/s]
 1/1 [=====] - 0s 310ms/step
 3180it [22:35, 2.16it/s]
 1/1 [=====] - 0s 315ms/step
 3181it [22:35, 2.08it/s]
 1/1 [=====] - 0s 323ms/step
 3182it [22:36, 2.09it/s]
 1/1 [=====] - 0s 343ms/step
 3183it [22:36, 2.07it/s]
 1/1 [=====] - 0s 337ms/step
 3184it [22:37, 2.02it/s]
 1/1 [=====] - 0s 414ms/step
 3185it [22:37, 1.91it/s]
 1/1 [=====] - 0s 335ms/step

3186it [22:38, 1.92it/s]
 1/1 [=====] - 0s 343ms/step
 3187it [22:38, 1.95it/s]
 1/1 [=====] - 0s 338ms/step
 3188it [22:39, 1.98it/s]
 1/1 [=====] - 0s 347ms/step
 3189it [22:39, 1.94it/s]
 1/1 [=====] - 0s 380ms/step
 3190it [22:40, 1.91it/s]
 1/1 [=====] - 0s 332ms/step
 3191it [22:41, 1.96it/s]
 1/1 [=====] - 0s 352ms/step
 3192it [22:41, 1.96it/s]
 1/1 [=====] - 0s 342ms/step
 3193it [22:42, 1.94it/s]
 1/1 [=====] - 0s 385ms/step
 3194it [22:42, 1.96it/s]
 1/1 [=====] - 0s 317ms/step
 3195it [22:42, 2.04it/s]
 1/1 [=====] - 0s 318ms/step
 3196it [22:43, 2.12it/s]
 1/1 [=====] - 0s 325ms/step
 3197it [22:43, 2.18it/s]
 1/1 [=====] - 0s 395ms/step
 3198it [22:44, 2.13it/s]
 1/1 [=====] - 0s 337ms/step
 3199it [22:44, 2.09it/s]
 1/1 [=====] - 0s 323ms/step
 3200it [22:45, 2.09it/s]
 1/1 [=====] - 0s 324ms/step
 3201it [22:45, 2.09it/s]
 1/1 [=====] - 0s 338ms/step

3202it [22:46, 2.02it/s]
 1/1 [=====] - 0s 333ms/step
 3203it [22:46, 1.99it/s]
 1/1 [=====] - 0s 337ms/step
 3204it [22:47, 2.00it/s]
 1/1 [=====] - 0s 331ms/step
 3205it [22:47, 1.94it/s]
 1/1 [=====] - 0s 329ms/step
 3206it [22:48, 1.97it/s]
 1/1 [=====] - 0s 338ms/step
 3207it [22:48, 1.95it/s]
 1/1 [=====] - 0s 341ms/step
 3208it [22:49, 1.97it/s]
 1/1 [=====] - 0s 327ms/step
 3209it [22:49, 1.97it/s]
 1/1 [=====] - 0s 330ms/step
 3210it [22:50, 2.06it/s]
 1/1 [=====] - 0s 329ms/step
 3211it [22:50, 2.13it/s]
 1/1 [=====] - 0s 372ms/step
 3212it [22:51, 2.11it/s]
 1/1 [=====] - 0s 339ms/step
 3213it [22:51, 2.14it/s]
 1/1 [=====] - 0s 313ms/step
 3214it [22:52, 2.21it/s]
 1/1 [=====] - 0s 334ms/step
 3215it [22:52, 2.16it/s]
 1/1 [=====] - 0s 328ms/step
 3216it [22:53, 2.13it/s]
 1/1 [=====] - 0s 347ms/step
 3217it [22:53, 2.03it/s]
 1/1 [=====] - 0s 342ms/step

3218it [22:54, 2.03it/s]
 1/1 [=====] - 0s 327ms/step
 3219it [22:54, 2.04it/s]
 1/1 [=====] - 0s 370ms/step
 3220it [22:55, 2.00it/s]
 1/1 [=====] - 0s 346ms/step
 3221it [22:55, 2.01it/s]
 1/1 [=====] - 0s 356ms/step
 3222it [22:56, 1.99it/s]
 1/1 [=====] - 0s 356ms/step
 3223it [22:56, 1.95it/s]
 1/1 [=====] - 0s 389ms/step
 3224it [22:57, 1.91it/s]
 1/1 [=====] - 0s 341ms/step
 3225it [22:57, 1.94it/s]
 1/1 [=====] - 0s 340ms/step
 3226it [22:58, 2.00it/s]
 1/1 [=====] - 0s 319ms/step
 3227it [22:58, 2.10it/s]
 1/1 [=====] - 0s 345ms/step
 3228it [22:59, 2.08it/s]
 1/1 [=====] - 0s 296ms/step
 3229it [22:59, 2.13it/s]
 1/1 [=====] - 0s 329ms/step
 3230it [23:00, 2.18it/s]
 1/1 [=====] - 0s 345ms/step
 3231it [23:00, 2.05it/s]
 1/1 [=====] - 0s 323ms/step
 3232it [23:01, 2.06it/s]
 1/1 [=====] - 0s 352ms/step
 3233it [23:01, 2.03it/s]
 1/1 [=====] - 0s 349ms/step

3234it [23:02, 2.00it/s]
 1/1 [=====] - 0s 350ms/step
 3235it [23:02, 1.98it/s]
 1/1 [=====] - 0s 329ms/step
 3236it [23:03, 2.00it/s]
 1/1 [=====] - 0s 364ms/step
 3237it [23:03, 1.97it/s]
 1/1 [=====] - 0s 379ms/step
 3238it [23:04, 1.94it/s]
 1/1 [=====] - 0s 336ms/step
 3239it [23:04, 1.97it/s]
 1/1 [=====] - 0s 348ms/step
 3240it [23:05, 1.98it/s]
 1/1 [=====] - 0s 347ms/step
 3241it [23:05, 1.90it/s]
 1/1 [=====] - 0s 345ms/step
 3242it [23:06, 1.93it/s]
 1/1 [=====] - 0s 311ms/step
 3243it [23:06, 2.00it/s]
 1/1 [=====] - 0s 323ms/step
 3244it [23:07, 2.09it/s]
 1/1 [=====] - 0s 314ms/step
 3245it [23:07, 2.17it/s]
 1/1 [=====] - 0s 319ms/step
 3246it [23:07, 2.22it/s]
 1/1 [=====] - 0s 393ms/step
 3247it [23:08, 2.11it/s]
 1/1 [=====] - 0s 333ms/step
 3248it [23:08, 2.07it/s]
 1/1 [=====] - 0s 350ms/step
 3249it [23:09, 2.03it/s]
 1/1 [=====] - 0s 338ms/step

3250it [23:09, 2.03it/s]
 1/1 [=====] - 0s 379ms/step
 3251it [23:10, 1.98it/s]
 1/1 [=====] - 0s 338ms/step
 3252it [23:10, 2.00it/s]
 1/1 [=====] - 0s 333ms/step
 3253it [23:11, 1.97it/s]
 1/1 [=====] - 0s 340ms/step
 3254it [23:12, 1.95it/s]
 1/1 [=====] - 0s 350ms/step
 3255it [23:12, 1.96it/s]
 1/1 [=====] - 0s 340ms/step
 3256it [23:13, 1.96it/s]
 1/1 [=====] - 0s 355ms/step
 3257it [23:13, 1.96it/s]
 1/1 [=====] - 0s 406ms/step
 3258it [23:14, 1.91it/s]
 1/1 [=====] - 0s 337ms/step
 3259it [23:14, 1.95it/s]
 1/1 [=====] - 0s 322ms/step
 3260it [23:15, 2.05it/s]
 1/1 [=====] - 0s 341ms/step
 3261it [23:15, 2.11it/s]
 1/1 [=====] - 0s 366ms/step
 3262it [23:15, 2.11it/s]
 1/1 [=====] - 0s 315ms/step
 3263it [23:16, 2.19it/s]
 1/1 [=====] - 0s 336ms/step
 3264it [23:16, 2.13it/s]
 1/1 [=====] - 0s 324ms/step
 3265it [23:17, 2.07it/s]
 1/1 [=====] - 0s 372ms/step

3266it [23:17, 2.02it/s]
 1/1 [=====] - 0s 348ms/step
 3267it [23:18, 2.01it/s]
 1/1 [=====] - 0s 346ms/step
 3268it [23:18, 2.01it/s]
 1/1 [=====] - 0s 345ms/step
 3269it [23:19, 2.01it/s]
 1/1 [=====] - 0s 408ms/step
 3270it [23:19, 1.94it/s]
 1/1 [=====] - 0s 345ms/step
 3271it [23:20, 1.96it/s]
 1/1 [=====] - 0s 360ms/step
 3272it [23:20, 1.96it/s]
 1/1 [=====] - 0s 349ms/step
 3273it [23:21, 1.97it/s]
 1/1 [=====] - 0s 403ms/step
 3274it [23:22, 1.92it/s]
 1/1 [=====] - 0s 362ms/step
 3275it [23:22, 1.92it/s]
 1/1 [=====] - 0s 328ms/step
 3276it [23:22, 2.03it/s]
 1/1 [=====] - 0s 338ms/step
 3277it [23:23, 2.05it/s]
 1/1 [=====] - 0s 363ms/step
 3278it [23:25, 1.20it/s]
 1/1 [=====] - 0s 341ms/step
 3279it [23:25, 1.36it/s]
 1/1 [=====] - 0s 376ms/step
 3280it [23:26, 1.48it/s]
 1/1 [=====] - 0s 363ms/step
 3281it [23:26, 1.58it/s]
 1/1 [=====] - 0s 330ms/step

3282it [23:27, 1.69it/s]
 1/1 [=====] - 0s 345ms/step
 3283it [23:27, 1.77it/s]
 1/1 [=====] - 0s 339ms/step
 3284it [23:28, 1.84it/s]
 1/1 [=====] - 0s 389ms/step
 3285it [23:28, 1.83it/s]
 1/1 [=====] - 0s 324ms/step
 3286it [23:29, 1.89it/s]
 1/1 [=====] - 0s 333ms/step
 3287it [23:29, 1.93it/s]
 1/1 [=====] - 0s 325ms/step
 3288it [23:30, 1.96it/s]
 1/1 [=====] - 0s 304ms/step
 3289it [23:30, 1.91it/s]
 1/1 [=====] - 0s 349ms/step
 3290it [23:31, 1.93it/s]
 1/1 [=====] - 0s 326ms/step
 3291it [23:31, 2.02it/s]
 1/1 [=====] - 0s 339ms/step
 3292it [23:32, 2.02it/s]
 1/1 [=====] - 0s 336ms/step
 3293it [23:32, 2.07it/s]
 1/1 [=====] - 0s 313ms/step
 3294it [23:33, 2.15it/s]
 1/1 [=====] - 0s 334ms/step
 3295it [23:33, 2.10it/s]
 1/1 [=====] - 0s 338ms/step
 3296it [23:34, 2.07it/s]
 1/1 [=====] - 0s 350ms/step
 3297it [23:34, 2.02it/s]
 1/1 [=====] - 0s 329ms/step

3298it [23:35, 2.02it/s]
 1/1 [=====] - 0s 352ms/step
 3299it [23:35, 1.92it/s]
 1/1 [=====] - 0s 335ms/step
 3300it [23:36, 1.90it/s]
 1/1 [=====] - 0s 351ms/step
 3301it [23:36, 1.91it/s]
 1/1 [=====] - 0s 332ms/step
 3302it [23:37, 1.95it/s]
 1/1 [=====] - 0s 352ms/step
 3303it [23:37, 1.92it/s]
 1/1 [=====] - 0s 335ms/step
 3304it [23:38, 1.95it/s]
 1/1 [=====] - 0s 355ms/step
 3305it [23:38, 1.93it/s]
 1/1 [=====] - 0s 349ms/step
 3306it [23:39, 1.90it/s]
 1/1 [=====] - 0s 329ms/step
 3307it [23:39, 1.89it/s]
 1/1 [=====] - 0s 306ms/step
 3308it [23:40, 2.02it/s]
 1/1 [=====] - 0s 308ms/step
 3309it [23:40, 2.11it/s]
 1/1 [=====] - 0s 375ms/step
 3310it [23:41, 2.09it/s]
 1/1 [=====] - 0s 326ms/step
 3311it [23:41, 2.11it/s]
 1/1 [=====] - 0s 334ms/step
 3312it [23:42, 2.09it/s]
 1/1 [=====] - 0s 368ms/step
 3313it [23:42, 2.02it/s]
 1/1 [=====] - 0s 357ms/step

3314it [23:43, 2.00it/s]
 1/1 [=====] - 0s 336ms/step
 3315it [23:43, 2.00it/s]
 1/1 [=====] - 0s 338ms/step
 3316it [23:44, 1.94it/s]
 1/1 [=====] - 0s 350ms/step
 3317it [23:44, 1.91it/s]
 1/1 [=====] - 0s 340ms/step
 3318it [23:45, 1.91it/s]
 1/1 [=====] - 0s 326ms/step
 3319it [23:45, 1.95it/s]
 1/1 [=====] - 0s 384ms/step
 3320it [23:46, 1.92it/s]
 1/1 [=====] - 0s 327ms/step
 3321it [23:46, 1.95it/s]
 1/1 [=====] - 0s 318ms/step
 3322it [23:47, 1.96it/s]
 1/1 [=====] - 0s 381ms/step
 3323it [23:47, 1.91it/s]
 1/1 [=====] - 0s 318ms/step
 3324it [23:48, 2.02it/s]
 1/1 [=====] - 0s 338ms/step
 3325it [23:48, 2.08it/s]
 1/1 [=====] - 0s 357ms/step
 3326it [23:49, 2.10it/s]
 1/1 [=====] - 0s 328ms/step
 3327it [23:49, 2.15it/s]
 1/1 [=====] - 0s 336ms/step
 3328it [23:50, 2.12it/s]
 1/1 [=====] - 0s 393ms/step
 3329it [23:50, 2.01it/s]
 1/1 [=====] - 0s 337ms/step

3330it [23:51, 2.01it/s]
 1/1 [=====] - 0s 334ms/step
 3331it [23:51, 2.01it/s]
 1/1 [=====] - 0s 348ms/step
 3332it [23:52, 1.95it/s]
 1/1 [=====] - 0s 343ms/step
 3333it [23:52, 1.97it/s]
 1/1 [=====] - 0s 330ms/step
 3334it [23:53, 1.94it/s]
 1/1 [=====] - 0s 389ms/step
 3335it [23:53, 1.90it/s]
 1/1 [=====] - 0s 342ms/step
 3336it [23:54, 1.93it/s]
 1/1 [=====] - 0s 334ms/step
 3337it [23:54, 1.96it/s]
 1/1 [=====] - 0s 361ms/step
 3338it [23:55, 1.94it/s]
 1/1 [=====] - 0s 358ms/step
 3339it [23:55, 1.91it/s]
 1/1 [=====] - 0s 324ms/step
 3340it [23:56, 1.99it/s]
 1/1 [=====] - 0s 316ms/step
 3341it [23:56, 2.08it/s]
 1/1 [=====] - 0s 303ms/step
 3342it [23:57, 2.17it/s]
 1/1 [=====] - 0s 341ms/step
 3343it [23:57, 2.13it/s]
 1/1 [=====] - 0s 325ms/step
 3344it [23:58, 2.18it/s]
 1/1 [=====] - 0s 336ms/step
 3345it [23:58, 2.13it/s]
 1/1 [=====] - 0s 315ms/step

3346it [23:59, 2.07it/s]
 1/1 [=====] - 0s 344ms/step
 3347it [23:59, 2.01it/s]
 1/1 [=====] - 0s 348ms/step
 3348it [24:00, 2.00it/s]
 1/1 [=====] - 0s 327ms/step
 3349it [24:00, 2.02it/s]
 1/1 [=====] - 0s 346ms/step
 3350it [24:01, 1.96it/s]
 1/1 [=====] - 0s 331ms/step
 3351it [24:01, 1.98it/s]
 1/1 [=====] - 0s 339ms/step
 3352it [24:02, 1.93it/s]
 1/1 [=====] - 0s 355ms/step
 3353it [24:02, 1.92it/s]
 1/1 [=====] - 0s 354ms/step
 3354it [24:03, 1.90it/s]
 1/1 [=====] - 0s 388ms/step
 3355it [24:03, 1.85it/s]
 1/1 [=====] - 0s 365ms/step
 3356it [24:04, 1.83it/s]
 1/1 [=====] - 0s 326ms/step
 3357it [24:04, 1.92it/s]
 1/1 [=====] - 0s 318ms/step
 3358it [24:05, 1.87it/s]
 1/1 [=====] - 0s 301ms/step
 3359it [24:05, 1.99it/s]
 1/1 [=====] - 0s 351ms/step
 3360it [24:06, 2.03it/s]
 1/1 [=====] - 0s 345ms/step
 3361it [24:06, 2.00it/s]
 1/1 [=====] - 0s 366ms/step

3362it [24:07, 1.95it/s]
 1/1 [=====] - 0s 352ms/step
 3363it [24:07, 1.96it/s]
 1/1 [=====] - 0s 338ms/step
 3364it [24:08, 1.98it/s]
 1/1 [=====] - 0s 395ms/step
 3365it [24:08, 1.92it/s]
 1/1 [=====] - 0s 347ms/step
 3366it [24:09, 1.94it/s]
 1/1 [=====] - 0s 341ms/step
 3367it [24:09, 1.96it/s]
 1/1 [=====] - 0s 379ms/step
 3368it [24:10, 1.93it/s]
 1/1 [=====] - 0s 358ms/step
 3369it [24:11, 1.93it/s]
 1/1 [=====] - 0s 352ms/step
 3370it [24:11, 1.90it/s]
 1/1 [=====] - 0s 337ms/step
 3371it [24:12, 1.93it/s]
 1/1 [=====] - 0s 347ms/step
 3372it [24:12, 1.96it/s]
 1/1 [=====] - 0s 334ms/step
 3373it [24:12, 2.05it/s]
 1/1 [=====] - 0s 328ms/step
 3374it [24:13, 2.12it/s]
 1/1 [=====] - 0s 305ms/step
 3375it [24:13, 2.20it/s]
 1/1 [=====] - 0s 343ms/step
 3376it [24:14, 2.12it/s]
 1/1 [=====] - 0s 336ms/step
 3377it [24:14, 2.09it/s]
 1/1 [=====] - 0s 355ms/step

3378it [24:15, 2.05it/s]
 1/1 [=====] - 0s 434ms/step
 3379it [24:15, 1.93it/s]
 1/1 [=====] - 0s 338ms/step
 3380it [24:16, 1.96it/s]
 1/1 [=====] - 0s 360ms/step
 3381it [24:16, 1.96it/s]
 1/1 [=====] - 0s 456ms/step
 3382it [24:17, 1.81it/s]
 1/1 [=====] - 0s 340ms/step
 3383it [24:18, 1.88it/s]
 1/1 [=====] - 0s 346ms/step
 3384it [24:18, 1.91it/s]
 1/1 [=====] - 0s 403ms/step
 3385it [24:19, 1.87it/s]
 1/1 [=====] - 0s 354ms/step
 3386it [24:19, 1.89it/s]
 1/1 [=====] - 0s 338ms/step
 3387it [24:20, 1.93it/s]
 1/1 [=====] - 0s 395ms/step
 3388it [24:20, 1.95it/s]
 1/1 [=====] - 0s 324ms/step
 3389it [24:21, 2.03it/s]
 1/1 [=====] - 0s 331ms/step
 3390it [24:21, 2.11it/s]
 1/1 [=====] - 0s 344ms/step
 3391it [24:22, 2.07it/s]
 1/1 [=====] - 0s 328ms/step
 3392it [24:22, 2.14it/s]
 1/1 [=====] - 0s 338ms/step
 3393it [24:22, 2.10it/s]
 1/1 [=====] - 0s 366ms/step

3394it [24:23, 1.98it/s]
 1/1 [=====] - 0s 341ms/step
 3395it [24:24, 1.99it/s]
 1/1 [=====] - 0s 322ms/step
 3396it [24:24, 2.02it/s]
 1/1 [=====] - 0s 351ms/step
 3397it [24:25, 1.96it/s]
 1/1 [=====] - 0s 327ms/step
 3398it [24:25, 1.97it/s]
 1/1 [=====] - 0s 339ms/step
 3399it [24:26, 1.98it/s]
 1/1 [=====] - 0s 317ms/step
 3400it [24:26, 1.93it/s]
 1/1 [=====] - 0s 325ms/step
 3401it [24:27, 1.97it/s]
 1/1 [=====] - 0s 369ms/step
 3402it [24:27, 1.95it/s]
 1/1 [=====] - 0s 338ms/step
 3403it [24:28, 1.93it/s]
 1/1 [=====] - 0s 343ms/step
 3404it [24:28, 1.94it/s]
 1/1 [=====] - 0s 328ms/step
 3405it [24:29, 2.03it/s]
 1/1 [=====] - 0s 316ms/step
 3406it [24:29, 2.00it/s]
 1/1 [=====] - 0s 313ms/step
 3407it [24:30, 2.10it/s]
 1/1 [=====] - 0s 311ms/step
 3408it [24:30, 2.18it/s]
 1/1 [=====] - 0s 349ms/step
 3409it [24:31, 2.03it/s]
 1/1 [=====] - 0s 329ms/step

3410it [24:31, 2.04it/s]
 1/1 [=====] - 0s 350ms/step
 3411it [24:32, 2.02it/s]
 1/1 [=====] - 0s 349ms/step
 3412it [24:32, 1.96it/s]
 1/1 [=====] - 0s 344ms/step
 3413it [24:33, 1.96it/s]
 1/1 [=====] - 0s 348ms/step
 3414it [24:33, 1.97it/s]
 1/1 [=====] - 0s 360ms/step
 3415it [24:34, 1.91it/s]
 1/1 [=====] - 0s 334ms/step
 3416it [24:34, 1.95it/s]
 1/1 [=====] - 0s 332ms/step
 3417it [24:35, 1.98it/s]
 1/1 [=====] - 0s 344ms/step
 3418it [24:35, 1.89it/s]
 1/1 [=====] - 0s 340ms/step
 3419it [24:36, 1.92it/s]
 1/1 [=====] - 0s 334ms/step
 3420it [24:36, 1.94it/s]
 1/1 [=====] - 0s 350ms/step
 3421it [24:37, 1.97it/s]
 1/1 [=====] - 0s 317ms/step
 3422it [24:37, 2.05it/s]
 1/1 [=====] - 0s 320ms/step
 3423it [24:38, 2.13it/s]
 1/1 [=====] - 0s 344ms/step
 3424it [24:38, 2.06it/s]
 1/1 [=====] - 0s 337ms/step
 3425it [24:39, 2.05it/s]
 1/1 [=====] - 0s 379ms/step

3426it [24:39, 1.99it/s]
 1/1 [=====] - 0s 364ms/step
 3427it [24:40, 1.91it/s]
 1/1 [=====] - 0s 361ms/step
 3428it [24:40, 1.90it/s]
 1/1 [=====] - 0s 339ms/step
 3429it [24:41, 1.93it/s]
 1/1 [=====] - 0s 361ms/step
 3430it [24:41, 1.85it/s]
 1/1 [=====] - 0s 351ms/step
 3431it [24:42, 1.89it/s]
 1/1 [=====] - 0s 368ms/step
 3432it [24:42, 1.89it/s]
 1/1 [=====] - 0s 408ms/step
 3433it [24:43, 1.86it/s]
 1/1 [=====] - 0s 361ms/step
 3434it [24:43, 1.88it/s]
 1/1 [=====] - 0s 346ms/step
 3435it [24:44, 1.92it/s]
 1/1 [=====] - 0s 374ms/step
 3436it [24:44, 1.95it/s]
 1/1 [=====] - 0s 339ms/step
 3437it [24:45, 2.01it/s]
 1/1 [=====] - 0s 332ms/step
 3438it [24:45, 2.08it/s]
 1/1 [=====] - 0s 356ms/step
 3439it [24:46, 2.06it/s]
 1/1 [=====] - 0s 344ms/step
 3440it [24:46, 2.10it/s]
 1/1 [=====] - 0s 351ms/step
 3441it [24:47, 2.05it/s]
 1/1 [=====] - 0s 323ms/step

3442it [24:47, 1.94it/s]
 1/1 [=====] - 0s 335ms/step
 3443it [24:48, 1.97it/s]
 1/1 [=====] - 0s 335ms/step
 3444it [24:48, 1.98it/s]
 1/1 [=====] - 0s 380ms/step
 3445it [24:49, 1.95it/s]
 1/1 [=====] - 0s 344ms/step
 3446it [24:49, 1.96it/s]
 1/1 [=====] - 0s 339ms/step
 3447it [24:50, 1.99it/s]
 1/1 [=====] - 0s 387ms/step
 3448it [24:50, 1.89it/s]
 1/1 [=====] - 0s 395ms/step
 3449it [24:51, 1.87it/s]
 1/1 [=====] - 0s 350ms/step
 3450it [24:51, 1.90it/s]
 1/1 [=====] - 0s 343ms/step
 3451it [24:52, 1.93it/s]
 1/1 [=====] - 0s 401ms/step
 3452it [24:53, 1.92it/s]
 1/1 [=====] - 0s 335ms/step
 3453it [24:53, 2.02it/s]
 1/1 [=====] - 0s 348ms/step
 3454it [24:53, 2.04it/s]
 1/1 [=====] - 0s 376ms/step
 3455it [24:54, 2.04it/s]
 1/1 [=====] - 0s 337ms/step
 3456it [24:54, 2.08it/s]
 1/1 [=====] - 0s 325ms/step
 3457it [24:55, 2.07it/s]
 1/1 [=====] - 0s 341ms/step

3458it [24:55, 2.00it/s]
 1/1 [=====] - 0s 335ms/step
 3459it [24:56, 2.01it/s]
 1/1 [=====] - 0s 342ms/step
 3460it [24:56, 1.97it/s]
 1/1 [=====] - 0s 429ms/step
 3461it [24:57, 1.88it/s]
 1/1 [=====] - 0s 354ms/step
 3462it [24:58, 1.91it/s]
 1/1 [=====] - 0s 363ms/step
 3463it [24:58, 1.91it/s]
 1/1 [=====] - 0s 344ms/step
 3464it [24:59, 1.93it/s]
 1/1 [=====] - 0s 348ms/step
 3465it [24:59, 1.95it/s]
 1/1 [=====] - 0s 401ms/step
 3466it [25:00, 1.86it/s]
 1/1 [=====] - 0s 339ms/step
 3467it [25:00, 1.91it/s]
 1/1 [=====] - 0s 315ms/step
 3468it [25:01, 2.00it/s]
 1/1 [=====] - 0s 376ms/step
 3469it [25:01, 2.02it/s]
 1/1 [=====] - 0s 373ms/step
 3470it [25:02, 2.04it/s]
 1/1 [=====] - 0s 333ms/step
 3471it [25:02, 2.10it/s]
 1/1 [=====] - 0s 427ms/step
 3472it [25:03, 2.02it/s]
 1/1 [=====] - 0s 351ms/step
 3473it [25:03, 2.02it/s]
 1/1 [=====] - 0s 353ms/step

3474it [25:04, 2.00it/s]
 1/1 [=====] - 0s 402ms/step
 3475it [25:04, 1.93it/s]
 1/1 [=====] - 0s 359ms/step
 3476it [25:05, 1.94it/s]
 1/1 [=====] - 0s 401ms/step
 3477it [25:05, 1.89it/s]
 1/1 [=====] - 0s 358ms/step
 3478it [25:06, 1.88it/s]
 1/1 [=====] - 0s 357ms/step
 3479it [25:06, 1.90it/s]
 1/1 [=====] - 0s 363ms/step
 3480it [25:07, 1.87it/s]
 1/1 [=====] - 0s 348ms/step
 3481it [25:07, 1.90it/s]
 1/1 [=====] - 0s 395ms/step
 3482it [25:08, 1.88it/s]
 1/1 [=====] - 0s 345ms/step
 3483it [25:08, 1.91it/s]
 1/1 [=====] - 0s 316ms/step
 3484it [25:09, 2.02it/s]
 1/1 [=====] - 0s 417ms/step
 3485it [25:09, 1.99it/s]
 1/1 [=====] - 0s 330ms/step
 3486it [25:10, 2.07it/s]
 1/1 [=====] - 0s 328ms/step
 3487it [25:10, 2.14it/s]
 1/1 [=====] - 0s 375ms/step
 3488it [25:11, 2.10it/s]
 1/1 [=====] - 0s 342ms/step
 3489it [25:11, 2.08it/s]
 1/1 [=====] - 0s 345ms/step

3490it [25:12, 2.01it/s]
 1/1 [=====] - 0s 400ms/step
 3491it [25:12, 1.95it/s]
 1/1 [=====] - 0s 373ms/step
 3492it [25:13, 1.92it/s]
 1/1 [=====] - 0s 366ms/step
 3493it [25:13, 1.92it/s]
 1/1 [=====] - 0s 402ms/step
 3494it [25:14, 1.88it/s]
 1/1 [=====] - 0s 348ms/step
 3495it [25:14, 1.91it/s]
 1/1 [=====] - 0s 347ms/step
 3496it [25:15, 1.94it/s]
 1/1 [=====] - 0s 406ms/step
 3497it [25:15, 1.89it/s]
 1/1 [=====] - 0s 352ms/step
 3498it [25:16, 1.91it/s]
 1/1 [=====] - 0s 341ms/step
 3499it [25:16, 1.94it/s]
 1/1 [=====] - 0s 411ms/step
 3500it [25:17, 1.88it/s]
 1/1 [=====] - 0s 341ms/step
 3501it [25:17, 1.96it/s]
 1/1 [=====] - 0s 331ms/step
 3502it [25:18, 2.01it/s]
 1/1 [=====] - 0s 321ms/step
 3503it [25:18, 2.02it/s]
 1/1 [=====] - 0s 325ms/step
 3504it [25:19, 2.09it/s]
 1/1 [=====] - 0s 331ms/step
 3505it [25:19, 2.08it/s]
 1/1 [=====] - 0s 349ms/step

3506it [25:20, 1.99it/s]
 1/1 [=====] - 0s 365ms/step
 3507it [25:20, 1.97it/s]
 1/1 [=====] - 0s 335ms/step
 3508it [25:21, 2.00it/s]
 1/1 [=====] - 0s 417ms/step
 3509it [25:21, 1.92it/s]
 1/1 [=====] - 0s 347ms/step
 3510it [25:22, 1.94it/s]
 1/1 [=====] - 0s 357ms/step
 3511it [25:22, 1.94it/s]
 1/1 [=====] - 0s 351ms/step
 3512it [25:23, 1.93it/s]
 1/1 [=====] - 0s 376ms/step
 3513it [25:24, 1.92it/s]
 1/1 [=====] - 0s 405ms/step
 3514it [25:24, 1.84it/s]
 1/1 [=====] - 0s 344ms/step
 3515it [25:25, 1.88it/s]
 1/1 [=====] - 0s 332ms/step
 3516it [25:25, 1.93it/s]
 1/1 [=====] - 0s 346ms/step
 3517it [25:26, 1.98it/s]
 1/1 [=====] - 0s 336ms/step
 3518it [25:26, 2.04it/s]
 1/1 [=====] - 0s 377ms/step
 3519it [25:27, 2.04it/s]
 1/1 [=====] - 0s 347ms/step
 3520it [25:27, 2.09it/s]
 1/1 [=====] - 0s 357ms/step
 3521it [25:27, 2.05it/s]
 1/1 [=====] - 0s 434ms/step

3522it [25:28, 1.93it/s]
 1/1 [=====] - 0s 350ms/step
 3523it [25:29, 1.94it/s]
 1/1 [=====] - 0s 352ms/step
 3524it [25:29, 1.96it/s]
 1/1 [=====] - 0s 413ms/step
 3525it [25:30, 1.89it/s]
 1/1 [=====] - 0s 365ms/step
 3526it [25:30, 1.85it/s]
 1/1 [=====] - 0s 341ms/step
 3527it [25:31, 1.90it/s]
 1/1 [=====] - 0s 405ms/step
 3528it [25:31, 1.86it/s]
 1/1 [=====] - 0s 338ms/step
 3529it [25:32, 1.91it/s]
 1/1 [=====] - 0s 344ms/step
 3530it [25:32, 1.93it/s]
 1/1 [=====] - 0s 413ms/step
 3531it [25:33, 1.87it/s]
 1/1 [=====] - 0s 325ms/step
 3532it [25:33, 1.99it/s]
 1/1 [=====] - 0s 357ms/step
 3533it [25:34, 2.03it/s]
 1/1 [=====] - 0s 379ms/step
 3534it [25:34, 1.96it/s]
 1/1 [=====] - 0s 371ms/step
 3535it [25:35, 1.98it/s]
 1/1 [=====] - 0s 366ms/step
 3536it [25:35, 1.96it/s]
 1/1 [=====] - 0s 433ms/step
 3537it [25:36, 1.87it/s]
 1/1 [=====] - 0s 350ms/step

```

3538it [25:36, 1.87it/s]
1/1 [=====] - 0s 367ms/step
3539it [25:37, 1.88it/s]
1/1 [=====] - 0s 410ms/step
3540it [25:38, 1.84it/s]
1/1 [=====] - 0s 350ms/step
3541it [25:38, 1.88it/s]
1/1 [=====] - 0s 342ms/step
3542it [25:39, 1.91it/s]
1/1 [=====] - 0s 429ms/step
3543it [25:39, 1.85it/s]
1/1 [=====] - 0s 352ms/step
3544it [25:40, 1.88it/s]
1/1 [=====] - 0s 339ms/step
3545it [25:40, 1.92it/s]
1/1 [=====] - 0s 392ms/step
3546it [25:41, 1.88it/s]
1/1 [=====] - 0s 363ms/step
3547it [25:41, 1.89it/s]
1/1 [=====] - 0s 302ms/step
3548it [25:42, 1.94it/s]
1/1 [=====] - 0s 323ms/step
3549it [25:42, 1.97it/s]
1/1 [=====] - 0s 331ms/step
3550it [25:43, 2.01it/s]
1/1 [=====] - 0s 347ms/step
3551it [25:43, 2.06it/s]
1/1 [=====] - 0s 346ms/step
3552it [25:44, 2.00it/s]
1/1 [=====] - 0s 352ms/step
3553it [25:44, 1.99it/s]
1/1 [=====] - 0s 373ms/step

```

```

3554it [25:45, 1.96it/s]
1/1 [=====] - 0s 434ms/step
3555it [25:45, 1.87it/s]
1/1 [=====] - 0s 352ms/step
3556it [25:46, 1.90it/s]
1/1 [=====] - 0s 354ms/step
3557it [25:46, 1.92it/s]
1/1 [=====] - 0s 360ms/step
3558it [25:47, 1.90it/s]
1/1 [=====] - 0s 342ms/step
3559it [25:47, 1.92it/s]
1/1 [=====] - 0s 413ms/step
3560it [25:48, 1.87it/s]
1/1 [=====] - 0s 345ms/step
3561it [25:48, 1.89it/s]
1/1 [=====] - 0s 368ms/step
3562it [25:49, 1.86it/s]
1/1 [=====] - 0s 377ms/step
3563it [25:49, 1.90it/s]
1/1 [=====] - 0s 314ms/step
3564it [25:50, 2.02it/s]
1/1 [=====] - 0s 347ms/step
3565it [25:50, 2.06it/s]
1/1 [=====] - 0s 395ms/step
3566it [25:51, 2.03it/s]
1/1 [=====] - 0s 346ms/step
3567it [25:51, 2.08it/s]
1/1 [=====] - 0s 338ms/step
3568it [25:52, 2.06it/s]
1/1 [=====] - 0s 401ms/step
3569it [25:52, 1.98it/s]
1/1 [=====] - 0s 343ms/step

```

```

3570it [25:53, 1.98it/s]
1/1 [=====] - 0s 356ms/step
3571it [25:53, 1.97it/s]
1/1 [=====] - 0s 338ms/step
3572it [25:54, 1.93it/s]
1/1 [=====] - 0s 352ms/step
3573it [25:54, 1.95it/s]
1/1 [=====] - 0s 358ms/step
3574it [25:55, 1.89it/s]
1/1 [=====] - 0s 345ms/step
3575it [25:55, 1.92it/s]
1/1 [=====] - 0s 380ms/step
3576it [25:56, 1.91it/s]
1/1 [=====] - 0s 403ms/step
3577it [25:57, 1.87it/s]
1/1 [=====] - 0s 363ms/step
3578it [25:57, 1.89it/s]
1/1 [=====] - 0s 336ms/step
3579it [25:58, 1.96it/s]
1/1 [=====] - 0s 345ms/step
3580it [25:58, 1.99it/s]
1/1 [=====] - 0s 327ms/step
3581it [25:59, 2.03it/s]
1/1 [=====] - 0s 333ms/step
3582it [25:59, 2.10it/s]
1/1 [=====] - 0s 367ms/step
3583it [25:59, 2.04it/s]
1/1 [=====] - 0s 321ms/step
3584it [26:00, 2.05it/s]
1/1 [=====] - 0s 364ms/step
3585it [26:00, 2.01it/s]
1/1 [=====] - 0s 399ms/step

```

3586it [26:01, 1.90it/s]
 1/1 [=====] - 0s 351ms/step
 3587it [26:02, 1.92it/s]
 1/1 [=====] - 0s 329ms/step
 3588it [26:02, 1.96it/s]
 1/1 [=====] - 0s 333ms/step
 3589it [26:03, 1.95it/s]
 1/1 [=====] - 0s 350ms/step
 3590it [26:03, 1.95it/s]
 1/1 [=====] - 0s 352ms/step
 3591it [26:04, 1.93it/s]
 1/1 [=====] - 0s 230ms/step
 3592it [26:04, 2.12it/s]
 1/1 [=====] - 0s 342ms/step
 3593it [26:04, 2.09it/s]
 1/1 [=====] - 0s 427ms/step
 3594it [26:05, 1.97it/s]
 1/1 [=====] - 0s 358ms/step
 3595it [26:06, 1.97it/s]
 1/1 [=====] - 0s 327ms/step
 3596it [26:06, 2.06it/s]
 1/1 [=====] - 0s 423ms/step
 3597it [26:07, 2.00it/s]
 1/1 [=====] - 0s 337ms/step
 3598it [26:07, 2.04it/s]
 1/1 [=====] - 0s 310ms/step
 3599it [26:07, 2.12it/s]
 1/1 [=====] - 0s 380ms/step
 3600it [26:08, 2.09it/s]
 1/1 [=====] - 0s 347ms/step
 3601it [26:08, 2.12it/s]
 1/1 [=====] - 0s 317ms/step

3602it [26:09, 2.18it/s]
 1/1 [=====] - 0s 346ms/step
 3603it [26:09, 2.14it/s]
 1/1 [=====] - 0s 321ms/step
 3604it [26:10, 2.19it/s]
 1/1 [=====] - 0s 327ms/step
 3605it [26:10, 2.23it/s]
 1/1 [=====] - 0s 344ms/step
 3606it [26:11, 2.18it/s]
 1/1 [=====] - 0s 343ms/step
 3607it [26:11, 2.13it/s]
 1/1 [=====] - 0s 359ms/step
 3608it [26:12, 2.08it/s]
 1/1 [=====] - 0s 389ms/step
 3609it [26:12, 2.01it/s]
 1/1 [=====] - 0s 354ms/step
 3610it [26:13, 1.96it/s]
 1/1 [=====] - 0s 335ms/step
 3611it [26:13, 1.98it/s]
 1/1 [=====] - 0s 415ms/step
 3612it [26:14, 1.91it/s]
 1/1 [=====] - 0s 340ms/step
 3613it [26:14, 1.94it/s]
 1/1 [=====] - 0s 337ms/step
 3614it [26:15, 1.97it/s]
 1/1 [=====] - 0s 426ms/step
 3615it [26:15, 1.88it/s]
 1/1 [=====] - 0s 345ms/step
 3616it [26:16, 1.92it/s]
 1/1 [=====] - 0s 370ms/step
 3617it [26:16, 1.97it/s]
 1/1 [=====] - 0s 365ms/step

3618it [26:17, 1.99it/s]
 1/1 [=====] - 0s 364ms/step
 3619it [26:17, 2.00it/s]
 1/1 [=====] - 0s 404ms/step
 3620it [26:18, 1.95it/s]
 1/1 [=====] - 0s 365ms/step
 3621it [26:18, 1.95it/s]
 1/1 [=====] - 0s 406ms/step
 3622it [26:19, 1.86it/s]
 1/1 [=====] - 0s 373ms/step
 3623it [26:19, 1.87it/s]
 1/1 [=====] - 0s 333ms/step
 3624it [26:20, 1.97it/s]
 1/1 [=====] - 0s 393ms/step
 3625it [26:20, 1.98it/s]
 1/1 [=====] - 0s 317ms/step
 3626it [26:21, 2.07it/s]
 1/1 [=====] - 0s 340ms/step
 3627it [26:21, 2.13it/s]
 1/1 [=====] - 0s 416ms/step
 3628it [26:22, 2.06it/s]
 1/1 [=====] - 0s 339ms/step
 3629it [26:22, 2.05it/s]
 1/1 [=====] - 0s 365ms/step
 3630it [26:23, 2.01it/s]
 1/1 [=====] - 0s 416ms/step
 3631it [26:23, 1.93it/s]
 1/1 [=====] - 0s 364ms/step
 3632it [26:24, 1.94it/s]
 1/1 [=====] - 0s 347ms/step
 3633it [26:24, 1.96it/s]
 1/1 [=====] - 0s 358ms/step

3634it [26:25, 1.89it/s]
 1/1 [=====] - 0s 336ms/step
 3635it [26:25, 1.94it/s]
 1/1 [=====] - 0s 410ms/step
 3636it [26:26, 1.89it/s]
 1/1 [=====] - 0s 332ms/step
 3637it [26:27, 1.94it/s]
 1/1 [=====] - 0s 328ms/step
 3638it [26:27, 2.01it/s]
 1/1 [=====] - 0s 442ms/step
 3639it [26:28, 1.94it/s]
 1/1 [=====] - 0s 318ms/step
 3640it [26:28, 2.05it/s]
 1/1 [=====] - 0s 333ms/step
 3641it [26:28, 2.11it/s]
 1/1 [=====] - 0s 399ms/step
 3642it [26:29, 2.06it/s]
 1/1 [=====] - 0s 344ms/step
 3643it [26:29, 2.04it/s]
 1/1 [=====] - 0s 344ms/step
 3644it [26:30, 2.02it/s]
 1/1 [=====] - 0s 383ms/step
 3645it [26:30, 1.97it/s]
 1/1 [=====] - 0s 347ms/step
 3646it [26:31, 1.94it/s]
 1/1 [=====] - 0s 398ms/step
 3647it [26:32, 1.91it/s]
 1/1 [=====] - 0s 329ms/step
 3648it [26:32, 1.95it/s]
 1/1 [=====] - 0s 327ms/step
 3649it [26:32, 2.04it/s]
 1/1 [=====] - 0s 399ms/step

3650it [26:33, 2.03it/s]
 1/1 [=====] - 0s 318ms/step
 3651it [26:33, 2.10it/s]
 1/1 [=====] - 0s 327ms/step
 3652it [26:34, 2.16it/s]
 1/1 [=====] - 0s 388ms/step
 3653it [26:34, 2.11it/s]
 1/1 [=====] - 0s 318ms/step
 3654it [26:35, 2.19it/s]
 1/1 [=====] - 0s 354ms/step
 3655it [26:35, 2.18it/s]
 1/1 [=====] - 0s 385ms/step
 3656it [26:36, 2.14it/s]
 1/1 [=====] - 0s 346ms/step
 3657it [26:36, 2.17it/s]
 1/1 [=====] - 0s 333ms/step
 3658it [26:37, 2.15it/s]
 1/1 [=====] - 0s 406ms/step
 3659it [26:37, 2.10it/s]
 1/1 [=====] - 0s 381ms/step
 3660it [26:38, 2.02it/s]
 1/1 [=====] - 0s 350ms/step
 3661it [26:38, 2.01it/s]
 1/1 [=====] - 0s 388ms/step
 3662it [26:39, 1.94it/s]
 1/1 [=====] - 0s 351ms/step
 3663it [26:39, 1.95it/s]
 1/1 [=====] - 0s 412ms/step
 3664it [26:40, 1.89it/s]
 1/1 [=====] - 0s 346ms/step
 3665it [26:40, 1.93it/s]
 1/1 [=====] - 0s 339ms/step

3666it [26:41, 2.01it/s]
 1/1 [=====] - 0s 386ms/step
 3667it [26:41, 2.01it/s]
 1/1 [=====] - 0s 370ms/step
 3668it [26:42, 1.99it/s]
 1/1 [=====] - 0s 366ms/step
 3669it [26:42, 1.95it/s]
 1/1 [=====] - 0s 435ms/step
 3670it [26:43, 1.82it/s]
 1/1 [=====] - 0s 349ms/step
 3671it [26:43, 1.87it/s]
 1/1 [=====] - 0s 350ms/step
 3672it [26:44, 1.90it/s]
 1/1 [=====] - 0s 371ms/step
 3673it [26:44, 1.90it/s]
 1/1 [=====] - 0s 336ms/step
 3674it [26:45, 1.95it/s]
 1/1 [=====] - 0s 391ms/step
 3675it [26:45, 1.90it/s]
 1/1 [=====] - 0s 324ms/step
 3676it [26:46, 2.00it/s]
 1/1 [=====] - 0s 343ms/step
 3677it [26:46, 2.06it/s]
 1/1 [=====] - 0s 357ms/step
 3678it [26:47, 2.03it/s]
 1/1 [=====] - 0s 349ms/step
 3679it [26:47, 2.06it/s]
 1/1 [=====] - 0s 332ms/step
 3680it [26:48, 2.12it/s]
 1/1 [=====] - 0s 419ms/step
 3681it [26:48, 2.05it/s]
 1/1 [=====] - 0s 335ms/step

3682it [26:49, 2.01it/s]
 1/1 [=====] - 0s 335ms/step
 3683it [26:49, 2.03it/s]
 1/1 [=====] - 0s 385ms/step
 3684it [26:50, 1.95it/s]
 1/1 [=====] - 0s 334ms/step
 3685it [26:50, 1.99it/s]
 1/1 [=====] - 0s 388ms/step
 3686it [26:51, 1.94it/s]
 1/1 [=====] - 0s 355ms/step
 3687it [26:51, 1.94it/s]
 1/1 [=====] - 0s 402ms/step
 3688it [26:52, 1.89it/s]
 1/1 [=====] - 0s 335ms/step
 3689it [26:52, 1.94it/s]
 1/1 [=====] - 0s 361ms/step
 3690it [26:53, 1.94it/s]
 1/1 [=====] - 0s 396ms/step
 3691it [26:54, 1.90it/s]
 1/1 [=====] - 0s 361ms/step
 3692it [26:54, 1.92it/s]
 1/1 [=====] - 0s 323ms/step
 3693it [26:55, 1.97it/s]
 1/1 [=====] - 0s 403ms/step
 3694it [26:55, 1.87it/s]
 1/1 [=====] - 0s 314ms/step
 3695it [26:56, 1.97it/s]
 1/1 [=====] - 0s 381ms/step
 3696it [26:56, 1.97it/s]
 1/1 [=====] - 0s 333ms/step
 3697it [26:57, 2.05it/s]
 1/1 [=====] - 0s 332ms/step

3698it [26:57, 2.12it/s]
 1/1 [=====] - 0s 415ms/step
 3699it [26:57, 2.06it/s]
 1/1 [=====] - 0s 344ms/step
 3700it [26:58, 2.05it/s]
 1/1 [=====] - 0s 383ms/step
 3701it [26:58, 2.00it/s]
 1/1 [=====] - 0s 398ms/step
 3702it [26:59, 1.94it/s]
 1/1 [=====] - 0s 329ms/step
 3703it [27:00, 1.98it/s]
 1/1 [=====] - 0s 329ms/step
 3704it [27:00, 1.98it/s]
 1/1 [=====] - 0s 325ms/step
 3705it [27:01, 2.00it/s]
 1/1 [=====] - 0s 337ms/step
 3706it [27:01, 1.93it/s]
 1/1 [=====] - 0s 322ms/step
 3707it [27:02, 1.98it/s]
 1/1 [=====] - 0s 363ms/step
 3708it [27:02, 1.94it/s]
 1/1 [=====] - 0s 320ms/step
 3709it [27:03, 1.98it/s]
 1/1 [=====] - 0s 353ms/step
 3710it [27:03, 2.02it/s]
 1/1 [=====] - 0s 382ms/step
 3711it [27:04, 2.01it/s]
 1/1 [=====] - 0s 318ms/step
 3712it [27:04, 2.10it/s]
 1/1 [=====] - 0s 331ms/step
 3713it [27:04, 2.13it/s]
 1/1 [=====] - 0s 425ms/step

3714it [27:05, 2.00it/s]
 1/1 [=====] - 0s 365ms/step
 3715it [27:06, 1.95it/s]
 1/1 [=====] - 0s 355ms/step
 3716it [27:06, 1.95it/s]
 1/1 [=====] - 0s 409ms/step
 3717it [27:07, 1.89it/s]
 1/1 [=====] - 0s 351ms/step
 3718it [27:07, 1.90it/s]
 1/1 [=====] - 0s 380ms/step
 3719it [27:08, 1.94it/s]
 1/1 [=====] - 0s 409ms/step
 3720it [27:08, 1.93it/s]
 1/1 [=====] - 0s 366ms/step
 3721it [27:09, 1.98it/s]
 1/1 [=====] - 0s 332ms/step
 3722it [27:09, 2.06it/s]
 1/1 [=====] - 0s 360ms/step
 3723it [27:10, 2.06it/s]
 1/1 [=====] - 0s 350ms/step
 3724it [27:10, 2.08it/s]
 1/1 [=====] - 0s 376ms/step
 3725it [27:11, 2.08it/s]
 1/1 [=====] - 0s 361ms/step
 3726it [27:11, 2.03it/s]
 1/1 [=====] - 0s 362ms/step
 3727it [27:12, 2.00it/s]
 1/1 [=====] - 0s 410ms/step
 3728it [27:12, 1.93it/s]
 1/1 [=====] - 0s 351ms/step
 3729it [27:13, 1.95it/s]
 1/1 [=====] - 0s 369ms/step

```

3730it [27:13, 1.90it/s]
1/1 [=====] - 0s 362ms/step
3731it [27:14, 1.90it/s]
1/1 [=====] - 0s 358ms/step
3732it [27:14, 1.92it/s]
1/1 [=====] - 0s 395ms/step
3733it [27:15, 1.89it/s]
1/1 [=====] - 0s 357ms/step
3734it [27:15, 1.91it/s]
1/1 [=====] - 0s 354ms/step
3735it [27:16, 1.92it/s]
1/1 [=====] - 0s 394ms/step
3736it [27:16, 1.89it/s]
1/1 [=====] - 0s 337ms/step
3737it [27:17, 1.92it/s]
1/1 [=====] - 0s 327ms/step
3738it [27:17, 1.98it/s]
1/1 [=====] - 0s 397ms/step
3739it [27:18, 1.91it/s]
1/1 [=====] - 0s 329ms/step
3740it [27:18, 2.00it/s]
1/1 [=====] - 0s 380ms/step
3741it [27:19, 2.02it/s]
1/1 [=====] - 0s 398ms/step
3742it [27:19, 1.97it/s]
1/1 [=====] - 0s 359ms/step
3743it [27:20, 2.02it/s]
1/1 [=====] - 0s 356ms/step
3744it [27:20, 2.00it/s]
1/1 [=====] - 0s 404ms/step
3745it [27:21, 1.93it/s]
1/1 [=====] - 0s 332ms/step

```

3746it [27:21, 1.97it/s]
 1/1 [=====] - 0s 314ms/step
 3747it [27:22, 2.01it/s]
 1/1 [=====] - 0s 317ms/step
 3748it [27:22, 2.02it/s]
 1/1 [=====] - 0s 362ms/step
 3749it [27:23, 1.95it/s]
 1/1 [=====] - 0s 337ms/step
 3750it [27:23, 1.96it/s]
 1/1 [=====] - 0s 367ms/step
 3751it [27:24, 1.94it/s]
 1/1 [=====] - 0s 331ms/step
 3752it [27:24, 1.95it/s]
 1/1 [=====] - 0s 322ms/step
 3753it [27:25, 1.98it/s]
 1/1 [=====] - 0s 353ms/step
 3754it [27:25, 1.90it/s]
 1/1 [=====] - 0s 311ms/step
 3755it [27:26, 1.99it/s]
 1/1 [=====] - 0s 314ms/step
 3756it [27:26, 2.06it/s]
 1/1 [=====] - 0s 374ms/step
 3757it [27:27, 2.05it/s]
 1/1 [=====] - 0s 326ms/step
 3758it [27:27, 2.11it/s]
 1/1 [=====] - 0s 346ms/step
 3759it [27:28, 2.14it/s]
 1/1 [=====] - 0s 424ms/step
 3760it [27:28, 2.00it/s]
 1/1 [=====] - 0s 386ms/step
 3761it [27:29, 1.95it/s]
 1/1 [=====] - 0s 324ms/step

3762it [27:29, 2.00it/s]
 1/1 [=====] - 0s 380ms/step
 3763it [27:30, 1.95it/s]
 1/1 [=====] - 0s 320ms/step
 3764it [27:30, 1.99it/s]
 1/1 [=====] - 0s 307ms/step
 3765it [27:31, 2.02it/s]
 1/1 [=====] - 0s 380ms/step
 3766it [27:31, 1.97it/s]
 1/1 [=====] - 0s 339ms/step
 3767it [27:32, 2.04it/s]
 1/1 [=====] - 0s 355ms/step
 3768it [27:32, 2.02it/s]
 1/1 [=====] - 0s 395ms/step
 3769it [27:33, 1.96it/s]
 1/1 [=====] - 0s 384ms/step
 3770it [27:33, 1.94it/s]
 1/1 [=====] - 0s 336ms/step
 3771it [27:34, 1.97it/s]
 1/1 [=====] - 0s 409ms/step
 3772it [27:34, 1.91it/s]
 1/1 [=====] - 0s 344ms/step
 3773it [27:35, 1.95it/s]
 1/1 [=====] - 0s 372ms/step
 3774it [27:35, 1.92it/s]
 1/1 [=====] - 0s 397ms/step
 3775it [27:36, 1.88it/s]
 1/1 [=====] - 0s 319ms/step
 3776it [27:36, 1.95it/s]
 1/1 [=====] - 0s 306ms/step
 3777it [27:37, 2.01it/s]
 1/1 [=====] - 0s 322ms/step

3778it [27:37, 1.98it/s]
 1/1 [=====] - 0s 334ms/step
 3779it [27:38, 2.05it/s]
 1/1 [=====] - 0s 382ms/step
 3780it [27:38, 2.04it/s]
 1/1 [=====] - 0s 361ms/step
 3781it [27:39, 2.06it/s]
 1/1 [=====] - 0s 310ms/step
 3782it [27:39, 2.12it/s]
 1/1 [=====] - 0s 378ms/step
 3783it [27:40, 2.08it/s]
 1/1 [=====] - 0s 332ms/step
 3784it [27:40, 2.12it/s]
 1/1 [=====] - 0s 343ms/step
 3785it [27:41, 2.15it/s]
 1/1 [=====] - 0s 425ms/step
 3786it [27:41, 2.00it/s]
 1/1 [=====] - 0s 338ms/step
 3787it [27:42, 2.01it/s]
 1/1 [=====] - 0s 358ms/step
 3788it [27:42, 1.99it/s]
 1/1 [=====] - 0s 411ms/step
 3789it [27:43, 1.92it/s]
 1/1 [=====] - 0s 379ms/step
 3790it [27:43, 1.85it/s]
 1/1 [=====] - 0s 359ms/step
 3791it [27:44, 1.87it/s]
 1/1 [=====] - 0s 406ms/step
 3792it [27:45, 1.85it/s]
 1/1 [=====] - 0s 325ms/step
 3793it [27:45, 1.92it/s]
 1/1 [=====] - 0s 328ms/step

```

3794it [27:46, 1.95it/s]
1/1 [=====] - 0s 316ms/step
3795it [27:46, 1.96it/s]
1/1 [=====] - 0s 332ms/step
3796it [27:47, 1.96it/s]
1/1 [=====] - 0s 351ms/step
3797it [27:47, 1.95it/s]
1/1 [=====] - 0s 347ms/step
3798it [27:48, 1.95it/s]
1/1 [=====] - 0s 332ms/step
3799it [27:48, 1.96it/s]
1/1 [=====] - 0s 325ms/step
3800it [27:49, 1.99it/s]
1/1 [=====] - 0s 335ms/step
3801it [27:49, 2.00it/s]
1/1 [=====] - 0s 362ms/step
3802it [27:50, 1.84it/s]
1/1 [=====] - 0s 375ms/step
3803it [27:50, 1.86it/s]
1/1 [=====] - 0s 386ms/step
3804it [27:51, 1.89it/s]
1/1 [=====] - 0s 333ms/step
3805it [27:51, 1.99it/s]
1/1 [=====] - 0s 322ms/step
3806it [27:52, 2.07it/s]
1/1 [=====] - 0s 347ms/step
3807it [27:52, 2.07it/s]
1/1 [=====] - 0s 361ms/step
3808it [27:53, 2.07it/s]
1/1 [=====] - 0s 336ms/step
3809it [27:53, 2.13it/s]
1/1 [=====] - 0s 408ms/step

```

3810it [27:54, 2.07it/s]
 1/1 [=====] - 0s 327ms/step
 3811it [27:54, 2.14it/s]
 1/1 [=====] - 0s 342ms/step
 3812it [27:54, 2.16it/s]
 1/1 [=====] - 0s 403ms/step
 3813it [27:55, 2.03it/s]
 1/1 [=====] - 0s 344ms/step
 3814it [27:55, 1.99it/s]
 1/1 [=====] - 0s 364ms/step
 3815it [27:56, 1.97it/s]
 1/1 [=====] - 0s 402ms/step
 3816it [27:57, 1.92it/s]
 1/1 [=====] - 0s 364ms/step
 3817it [27:57, 1.92it/s]
 1/1 [=====] - 0s 330ms/step
 3818it [27:58, 1.96it/s]
 1/1 [=====] - 0s 398ms/step
 3819it [27:58, 1.92it/s]
 1/1 [=====] - 0s 327ms/step
 3820it [27:59, 1.96it/s]
 1/1 [=====] - 0s 351ms/step
 3821it [27:59, 1.90it/s]
 1/1 [=====] - 0s 321ms/step
 3822it [28:00, 1.92it/s]
 1/1 [=====] - 0s 364ms/step
 3823it [28:00, 1.93it/s]
 1/1 [=====] - 0s 306ms/step
 3824it [28:01, 1.99it/s]
 1/1 [=====] - 0s 319ms/step
 3825it [28:01, 1.99it/s]
 1/1 [=====] - 0s 351ms/step

3826it [28:02, 1.94it/s]
 1/1 [=====] - 0s 343ms/step
 3827it [28:02, 1.97it/s]
 1/1 [=====] - 0s 343ms/step
 3828it [28:03, 2.05it/s]
 1/1 [=====] - 0s 386ms/step
 3829it [28:03, 2.03it/s]
 1/1 [=====] - 0s 338ms/step
 3830it [28:04, 2.10it/s]
 1/1 [=====] - 0s 335ms/step
 3831it [28:04, 2.13it/s]
 1/1 [=====] - 0s 392ms/step
 3832it [28:05, 2.04it/s]
 1/1 [=====] - 0s 353ms/step
 3833it [28:05, 2.02it/s]
 1/1 [=====] - 0s 332ms/step
 3834it [28:06, 2.03it/s]
 1/1 [=====] - 0s 376ms/step
 3835it [28:06, 1.97it/s]
 1/1 [=====] - 0s 325ms/step
 3836it [28:07, 1.99it/s]
 1/1 [=====] - 0s 350ms/step
 3837it [28:07, 1.98it/s]
 1/1 [=====] - 0s 372ms/step
 3838it [28:08, 1.92it/s]
 1/1 [=====] - 0s 331ms/step
 3839it [28:08, 1.96it/s]
 1/1 [=====] - 0s 421ms/step
 3840it [28:09, 1.89it/s]
 1/1 [=====] - 0s 312ms/step
 3841it [28:09, 1.96it/s]
 1/1 [=====] - 0s 387ms/step

3842it [28:10, 1.93it/s]
 1/1 [=====] - 0s 343ms/step
 3843it [28:10, 1.96it/s]
 1/1 [=====] - 0s 392ms/step
 3844it [28:11, 1.96it/s]
 1/1 [=====] - 0s 305ms/step
 3845it [28:11, 2.06it/s]
 1/1 [=====] - 0s 433ms/step
 3846it [28:12, 2.00it/s]
 1/1 [=====] - 0s 302ms/step
 3847it [28:12, 2.08it/s]
 1/1 [=====] - 0s 360ms/step
 3848it [28:13, 2.10it/s]
 1/1 [=====] - 0s 313ms/step
 3849it [28:13, 2.11it/s]
 1/1 [=====] - 0s 373ms/step
 3850it [28:14, 1.94it/s]
 1/1 [=====] - 0s 311ms/step
 3851it [28:14, 2.00it/s]
 1/1 [=====] - 0s 332ms/step
 3852it [28:15, 2.01it/s]
 1/1 [=====] - 0s 378ms/step
 3853it [28:15, 1.89it/s]
 1/1 [=====] - 0s 330ms/step
 3854it [28:16, 1.94it/s]
 1/1 [=====] - 0s 324ms/step
 3855it [28:16, 1.98it/s]
 1/1 [=====] - 0s 333ms/step
 3856it [28:17, 1.99it/s]
 1/1 [=====] - 0s 385ms/step
 3857it [28:17, 1.88it/s]
 1/1 [=====] - 0s 292ms/step

```

3858it [28:18, 1.99it/s]
1/1 [=====] - 0s 326ms/step
3859it [28:18, 2.07it/s]
1/1 [=====] - 0s 299ms/step
3860it [28:19, 2.08it/s]
1/1 [=====] - 0s 338ms/step
3861it [28:19, 2.06it/s]
1/1 [=====] - 0s 345ms/step
3862it [28:20, 1.98it/s]
1/1 [=====] - 0s 309ms/step
3863it [28:20, 2.02it/s]
1/1 [=====] - 0s 354ms/step
3864it [28:21, 1.99it/s]
1/1 [=====] - 0s 308ms/step
3865it [28:21, 2.04it/s]
1/1 [=====] - 0s 435ms/step
3866it [28:22, 1.92it/s]
1/1 [=====] - 0s 344ms/step
3867it [28:22, 1.99it/s]
1/1 [=====] - 0s 329ms/step
3868it [28:23, 2.04it/s]
1/1 [=====] - 0s 409ms/step
3869it [28:23, 1.99it/s]
1/1 [=====] - 0s 349ms/step
3870it [28:24, 2.05it/s]
1/1 [=====] - 0s 331ms/step
3871it [28:24, 2.12it/s]
1/1 [=====] - 0s 392ms/step
3872it [28:25, 2.08it/s]
1/1 [=====] - 0s 364ms/step
3873it [28:25, 2.05it/s]
1/1 [=====] - 0s 352ms/step

```

3874it [28:26, 1.98it/s]
 1/1 [=====] - 0s 402ms/step
 3875it [28:26, 1.92it/s]
 1/1 [=====] - 0s 337ms/step
 3876it [28:27, 1.95it/s]
 1/1 [=====] - 0s 337ms/step
 3877it [28:27, 1.97it/s]
 1/1 [=====] - 0s 352ms/step
 3878it [28:28, 1.95it/s]
 1/1 [=====] - 0s 346ms/step
 3879it [28:28, 1.94it/s]
 1/1 [=====] - 0s 393ms/step
 3880it [28:29, 1.90it/s]
 1/1 [=====] - 0s 368ms/step
 3881it [28:29, 1.88it/s]
 1/1 [=====] - 0s 381ms/step
 3882it [28:30, 1.87it/s]
 1/1 [=====] - 0s 341ms/step
 3883it [28:30, 1.89it/s]
 1/1 [=====] - 0s 354ms/step
 3884it [28:31, 1.90it/s]
 1/1 [=====] - 0s 421ms/step
 3885it [28:31, 1.84it/s]
 1/1 [=====] - 0s 316ms/step
 3886it [28:32, 1.88it/s]
 1/1 [=====] - 0s 366ms/step
 3887it [28:32, 1.94it/s]
 1/1 [=====] - 0s 301ms/step
 3888it [28:33, 1.99it/s]
 1/1 [=====] - 0s 322ms/step
 3889it [28:33, 2.07it/s]
 1/1 [=====] - 0s 414ms/step

```

3890it [28:34, 2.01it/s]
1/1 [=====] - 0s 300ms/step
3891it [28:34, 2.09it/s]
1/1 [=====] - 0s 322ms/step
3892it [28:35, 2.13it/s]
1/1 [=====] - 0s 327ms/step
3893it [28:35, 2.10it/s]
1/1 [=====] - 0s 355ms/step
3894it [28:36, 2.00it/s]
1/1 [=====] - 0s 327ms/step
3895it [28:36, 2.02it/s]
1/1 [=====] - 0s 334ms/step
3896it [28:37, 2.03it/s]
1/1 [=====] - 0s 398ms/step
3897it [28:37, 1.89it/s]
1/1 [=====] - 0s 343ms/step
3898it [28:38, 1.89it/s]
1/1 [=====] - 0s 340ms/step
3899it [28:38, 1.93it/s]
1/1 [=====] - 0s 352ms/step
3900it [28:39, 1.87it/s]
1/1 [=====] - 0s 373ms/step
3901it [28:40, 1.88it/s]
1/1 [=====] - 0s 336ms/step
3902it [28:40, 1.92it/s]
1/1 [=====] - 0s 340ms/step
3903it [28:41, 1.90it/s]
1/1 [=====] - 0s 296ms/step
3904it [28:41, 2.01it/s]
1/1 [=====] - 0s 319ms/step
3905it [28:41, 2.07it/s]
1/1 [=====] - 0s 306ms/step

```


3906it [28:42, 2.10it/s]
 1/1 [=====] - 0s 317ms/step
 3907it [28:42, 2.15it/s]
 1/1 [=====] - 0s 348ms/step
 3908it [28:43, 2.14it/s]
 1/1 [=====] - 0s 356ms/step
 3909it [28:43, 2.03it/s]
 1/1 [=====] - 0s 346ms/step
 3910it [28:44, 1.97it/s]
 1/1 [=====] - 0s 404ms/step
 3911it [28:44, 1.91it/s]
 1/1 [=====] - 0s 356ms/step
 3912it [28:45, 1.89it/s]
 1/1 [=====] - 0s 321ms/step
 3913it [28:45, 1.94it/s]
 1/1 [=====] - 0s 429ms/step
 3914it [28:46, 1.86it/s]
 1/1 [=====] - 0s 307ms/step
 3915it [28:46, 1.98it/s]
 1/1 [=====] - 0s 338ms/step
 3916it [28:47, 1.99it/s]
 1/1 [=====] - 0s 342ms/step
 3917it [28:47, 2.00it/s]
 1/1 [=====] - 0s 319ms/step
 3918it [28:48, 2.07it/s]
 1/1 [=====] - 0s 413ms/step
 3919it [28:48, 1.97it/s]
 1/1 [=====] - 0s 323ms/step
 3920it [28:49, 2.01it/s]
 1/1 [=====] - 0s 372ms/step
 3921it [28:49, 1.98it/s]
 1/1 [=====] - 0s 317ms/step

3922it [28:50, 1.98it/s]
 1/1 [=====] - 0s 382ms/step
 3923it [28:51, 1.88it/s]
 1/1 [=====] - 0s 320ms/step
 3924it [28:51, 1.94it/s]
 1/1 [=====] - 0s 400ms/step
 3925it [28:52, 1.95it/s]
 1/1 [=====] - 0s 295ms/step
 3926it [28:52, 2.07it/s]
 1/1 [=====] - 0s 356ms/step
 3927it [28:53, 2.03it/s]
 1/1 [=====] - 0s 333ms/step
 3928it [28:53, 2.05it/s]
 1/1 [=====] - 0s 398ms/step
 3929it [28:54, 1.90it/s]
 1/1 [=====] - 0s 327ms/step
 3930it [28:54, 1.96it/s]
 1/1 [=====] - 0s 350ms/step
 3931it [28:55, 2.03it/s]
 1/1 [=====] - 0s 295ms/step
 3932it [28:55, 2.12it/s]
 1/1 [=====] - 0s 388ms/step
 3933it [28:55, 2.08it/s]
 1/1 [=====] - 0s 339ms/step
 3934it [28:56, 2.02it/s]
 1/1 [=====] - 0s 331ms/step
 3935it [28:56, 2.06it/s]
 1/1 [=====] - 0s 334ms/step
 3936it [28:57, 2.06it/s]
 1/1 [=====] - 0s 313ms/step
 3937it [28:57, 2.03it/s]
 1/1 [=====] - 0s 364ms/step

3938it [28:58, 1.98it/s]
 1/1 [=====] - 0s 326ms/step
 3939it [28:58, 2.01it/s]
 1/1 [=====] - 0s 327ms/step
 3940it [28:59, 1.96it/s]
 1/1 [=====] - 0s 327ms/step
 3941it [28:59, 1.99it/s]
 1/1 [=====] - 0s 380ms/step
 3942it [29:00, 1.95it/s]
 1/1 [=====] - 0s 360ms/step
 3943it [29:01, 1.94it/s]
 1/1 [=====] - 0s 331ms/step
 3944it [29:01, 1.94it/s]
 1/1 [=====] - 0s 319ms/step
 3945it [29:02, 1.97it/s]
 1/1 [=====] - 0s 333ms/step
 3946it [29:02, 1.94it/s]
 1/1 [=====] - 0s 487ms/step
 3947it [29:03, 1.76it/s]
 1/1 [=====] - 0s 342ms/step
 3948it [29:03, 1.81it/s]
 1/1 [=====] - 0s 371ms/step
 3949it [29:04, 1.81it/s]
 1/1 [=====] - 0s 365ms/step
 3950it [29:04, 1.86it/s]
 1/1 [=====] - 0s 312ms/step
 3951it [29:05, 1.91it/s]
 1/1 [=====] - 0s 373ms/step
 3952it [29:05, 1.93it/s]
 1/1 [=====] - 0s 330ms/step
 3953it [29:06, 1.91it/s]
 1/1 [=====] - 0s 342ms/step

3954it [29:06, 1.88it/s]
 1/1 [=====] - 0s 358ms/step
 3955it [29:07, 1.87it/s]
 1/1 [=====] - 0s 373ms/step
 3956it [29:08, 1.85it/s]
 1/1 [=====] - 0s 338ms/step
 3957it [29:08, 1.85it/s]
 1/1 [=====] - 0s 334ms/step
 3958it [29:09, 1.84it/s]
 1/1 [=====] - 0s 347ms/step
 3959it [29:09, 1.86it/s]
 1/1 [=====] - 0s 376ms/step
 3960it [29:10, 1.80it/s]
 1/1 [=====] - 0s 319ms/step
 3961it [29:10, 1.88it/s]
 1/1 [=====] - 0s 409ms/step
 3962it [29:11, 1.83it/s]
 1/1 [=====] - 0s 329ms/step
 3963it [29:11, 1.89it/s]
 1/1 [=====] - 0s 362ms/step
 3964it [29:12, 1.90it/s]
 1/1 [=====] - 0s 341ms/step
 3965it [29:12, 1.93it/s]
 1/1 [=====] - 0s 313ms/step
 3966it [29:13, 1.95it/s]
 1/1 [=====] - 0s 398ms/step
 3967it [29:13, 1.93it/s]
 1/1 [=====] - 0s 357ms/step
 3968it [29:14, 1.95it/s]
 1/1 [=====] - 0s 321ms/step
 3969it [29:14, 1.98it/s]
 1/1 [=====] - 0s 324ms/step

3970it [29:15, 1.96it/s]
 1/1 [=====] - 0s 318ms/step
 3971it [29:15, 1.99it/s]
 1/1 [=====] - 0s 350ms/step
 3972it [29:16, 1.91it/s]
 1/1 [=====] - 0s 330ms/step
 3973it [29:16, 1.96it/s]
 1/1 [=====] - 0s 336ms/step
 3974it [29:17, 1.98it/s]
 1/1 [=====] - 0s 382ms/step
 3975it [29:17, 1.91it/s]
 1/1 [=====] - 0s 322ms/step
 3976it [29:18, 1.97it/s]
 1/1 [=====] - 0s 446ms/step
 3977it [29:18, 1.87it/s]
 1/1 [=====] - 0s 330ms/step
 3978it [29:19, 1.92it/s]
 1/1 [=====] - 0s 361ms/step
 3979it [29:19, 1.92it/s]
 1/1 [=====] - 0s 318ms/step
 3980it [29:20, 1.98it/s]
 1/1 [=====] - 0s 365ms/step
 3981it [29:21, 1.90it/s]
 1/1 [=====] - 0s 297ms/step
 3982it [29:21, 1.98it/s]
 1/1 [=====] - 0s 301ms/step
 3983it [29:21, 2.08it/s]
 1/1 [=====] - 0s 401ms/step
 3984it [29:22, 2.02it/s]
 1/1 [=====] - 0s 323ms/step
 3985it [29:22, 2.10it/s]
 1/1 [=====] - 0s 319ms/step

3986it [29:23, 2.10it/s]
 1/1 [=====] - 0s 344ms/step
 3987it [29:23, 1.96it/s]
 1/1 [=====] - 0s 366ms/step
 3988it [29:24, 1.95it/s]
 1/1 [=====] - 0s 321ms/step
 3989it [29:24, 1.99it/s]
 1/1 [=====] - 0s 348ms/step
 3990it [29:25, 1.99it/s]
 1/1 [=====] - 0s 322ms/step
 3991it [29:25, 2.01it/s]
 1/1 [=====] - 0s 340ms/step
 3992it [29:26, 2.05it/s]
 1/1 [=====] - 0s 312ms/step
 3993it [29:26, 2.10it/s]
 1/1 [=====] - 0s 428ms/step
 3994it [29:27, 1.97it/s]
 1/1 [=====] - 0s 358ms/step
 3995it [29:27, 1.96it/s]
 1/1 [=====] - 0s 329ms/step
 3996it [29:28, 1.99it/s]
 1/1 [=====] - 0s 419ms/step
 3997it [29:29, 1.90it/s]
 1/1 [=====] - 0s 330ms/step
 3998it [29:29, 1.95it/s]
 1/1 [=====] - 0s 355ms/step
 3999it [29:30, 1.95it/s]
 1/1 [=====] - 0s 322ms/step
 4000it [29:30, 1.94it/s]
 1/1 [=====] - 0s 356ms/step
 4001it [29:31, 1.95it/s]
 1/1 [=====] - 0s 323ms/step

4002it [29:31, 1.99it/s]
 1/1 [=====] - 0s 426ms/step
 4003it [29:32, 1.90it/s]
 1/1 [=====] - 0s 308ms/step
 4004it [29:32, 2.00it/s]
 1/1 [=====] - 0s 364ms/step
 4005it [29:33, 2.01it/s]
 1/1 [=====] - 0s 331ms/step
 4006it [29:33, 2.00it/s]
 1/1 [=====] - 0s 343ms/step
 4007it [29:33, 2.06it/s]
 1/1 [=====] - 0s 297ms/step
 4008it [29:34, 2.15it/s]
 1/1 [=====] - 0s 413ms/step
 4009it [29:34, 2.06it/s]
 1/1 [=====] - 0s 320ms/step
 4010it [29:35, 2.11it/s]
 1/1 [=====] - 0s 366ms/step
 4011it [29:35, 2.04it/s]
 1/1 [=====] - 0s 335ms/step
 4012it [29:36, 2.05it/s]
 1/1 [=====] - 0s 329ms/step
 4013it [29:36, 2.00it/s]
 1/1 [=====] - 0s 360ms/step
 4014it [29:37, 1.97it/s]
 1/1 [=====] - 0s 316ms/step
 4015it [29:37, 2.02it/s]
 1/1 [=====] - 0s 447ms/step
 4016it [29:38, 1.89it/s]
 1/1 [=====] - 0s 340ms/step
 4017it [29:39, 1.93it/s]
 1/1 [=====] - 0s 366ms/step

4018it [29:39, 1.90it/s]
 1/1 [=====] - 0s 314ms/step
 4019it [29:40, 1.92it/s]
 1/1 [=====] - 0s 364ms/step
 4020it [29:40, 1.92it/s]
 1/1 [=====] - 0s 318ms/step
 4021it [29:41, 1.97it/s]
 1/1 [=====] - 0s 409ms/step
 4022it [29:41, 1.91it/s]
 1/1 [=====] - 0s 306ms/step
 4023it [29:42, 2.01it/s]
 1/1 [=====] - 0s 352ms/step
 4024it [29:42, 2.06it/s]
 1/1 [=====] - 0s 334ms/step
 4025it [29:42, 2.07it/s]
 1/1 [=====] - 0s 431ms/step
 4026it [29:43, 1.98it/s]
 1/1 [=====] - 0s 336ms/step
 4027it [29:44, 1.99it/s]
 1/1 [=====] - 0s 365ms/step
 4028it [29:44, 1.98it/s]
 1/1 [=====] - 0s 330ms/step
 4029it [29:45, 1.96it/s]
 1/1 [=====] - 0s 368ms/step
 4030it [29:45, 1.91it/s]
 1/1 [=====] - 0s 325ms/step
 4031it [29:46, 1.96it/s]
 1/1 [=====] - 0s 424ms/step
 4032it [29:46, 1.86it/s]
 1/1 [=====] - 0s 338ms/step
 4033it [29:47, 1.88it/s]
 1/1 [=====] - 0s 396ms/step

4034it [29:47, 1.86it/s]
 1/1 [=====] - 0s 311ms/step
 4035it [29:48, 1.91it/s]
 1/1 [=====] - 0s 375ms/step
 4036it [29:48, 1.91it/s]
 1/1 [=====] - 0s 341ms/step
 4037it [29:49, 1.93it/s]
 1/1 [=====] - 0s 408ms/step
 4038it [29:49, 1.93it/s]
 1/1 [=====] - 0s 326ms/step
 4039it [29:50, 2.01it/s]
 1/1 [=====] - 0s 363ms/step
 4040it [29:50, 2.05it/s]
 1/1 [=====] - 0s 304ms/step
 4041it [29:51, 2.13it/s]
 1/1 [=====] - 0s 422ms/step
 4042it [29:51, 2.01it/s]
 1/1 [=====] - 0s 316ms/step
 4043it [29:52, 2.04it/s]
 1/1 [=====] - 0s 391ms/step
 4044it [29:52, 1.98it/s]
 1/1 [=====] - 0s 324ms/step
 4045it [29:53, 2.00it/s]
 1/1 [=====] - 0s 403ms/step
 4046it [29:53, 1.92it/s]
 1/1 [=====] - 0s 314ms/step
 4047it [29:54, 1.97it/s]
 1/1 [=====] - 0s 362ms/step
 4048it [29:54, 1.96it/s]
 1/1 [=====] - 0s 361ms/step
 4049it [29:55, 1.95it/s]
 1/1 [=====] - 0s 430ms/step

4050it [29:55, 1.87it/s]
 1/1 [=====] - 0s 320ms/step
 4051it [29:56, 1.93it/s]
 1/1 [=====] - 0s 370ms/step
 4052it [29:56, 1.93it/s]
 1/1 [=====] - 0s 324ms/step
 4053it [29:57, 1.97it/s]
 1/1 [=====] - 0s 401ms/step
 4054it [29:57, 1.90it/s]
 1/1 [=====] - 0s 322ms/step
 4055it [29:58, 1.97it/s]
 1/1 [=====] - 0s 339ms/step
 4056it [29:58, 2.04it/s]
 1/1 [=====] - 0s 307ms/step
 4057it [29:59, 2.06it/s]
 1/1 [=====] - 0s 360ms/step
 4058it [29:59, 2.08it/s]
 1/1 [=====] - 0s 322ms/step
 4059it [30:00, 2.08it/s]
 1/1 [=====] - 0s 436ms/step
 4060it [30:00, 1.95it/s]
 1/1 [=====] - 0s 322ms/step
 4061it [30:01, 1.99it/s]
 1/1 [=====] - 0s 370ms/step
 4062it [30:01, 1.97it/s]
 1/1 [=====] - 0s 335ms/step
 4063it [30:02, 1.98it/s]
 1/1 [=====] - 0s 398ms/step
 4064it [30:02, 1.93it/s]
 1/1 [=====] - 0s 344ms/step
 4065it [30:03, 1.93it/s]
 1/1 [=====] - 0s 353ms/step

4066it [30:03, 1.91it/s]
 1/1 [=====] - 0s 343ms/step
 4067it [30:04, 1.94it/s]
 1/1 [=====] - 0s 397ms/step
 4068it [30:05, 1.90it/s]
 1/1 [=====] - 0s 338ms/step
 4069it [30:05, 1.92it/s]
 1/1 [=====] - 0s 348ms/step
 4070it [30:06, 1.94it/s]
 1/1 [=====] - 0s 333ms/step
 4071it [30:06, 1.89it/s]
 1/1 [=====] - 0s 350ms/step
 4072it [30:07, 1.96it/s]
 1/1 [=====] - 0s 318ms/step
 4073it [30:07, 2.03it/s]
 1/1 [=====] - 0s 404ms/step
 4074it [30:08, 2.01it/s]
 1/1 [=====] - 0s 317ms/step
 4075it [30:08, 2.08it/s]
 1/1 [=====] - 0s 358ms/step
 4076it [30:08, 2.10it/s]
 1/1 [=====] - 0s 360ms/step
 4077it [30:09, 1.98it/s]
 1/1 [=====] - 0s 392ms/step
 4078it [30:10, 1.87it/s]
 1/1 [=====] - 0s 347ms/step
 4079it [30:10, 1.89it/s]
 1/1 [=====] - 0s 427ms/step
 4080it [30:11, 1.84it/s]
 1/1 [=====] - 0s 363ms/step
 4081it [30:11, 1.83it/s]
 1/1 [=====] - 0s 403ms/step

4082it [30:12, 1.83it/s]
 1/1 [=====] - 0s 320ms/step
 4083it [30:12, 1.94it/s]
 1/1 [=====] - 0s 387ms/step
 4084it [30:13, 1.90it/s]
 1/1 [=====] - 0s 339ms/step
 4085it [30:13, 1.92it/s]
 1/1 [=====] - 0s 355ms/step
 4086it [30:14, 1.94it/s]
 1/1 [=====] - 0s 341ms/step
 4087it [30:14, 1.95it/s]
 1/1 [=====] - 0s 339ms/step
 4088it [30:15, 1.98it/s]
 1/1 [=====] - 0s 342ms/step
 4089it [30:15, 1.93it/s]
 1/1 [=====] - 0s 336ms/step
 4090it [30:16, 1.92it/s]
 1/1 [=====] - 0s 386ms/step
 4091it [30:16, 1.89it/s]
 1/1 [=====] - 0s 355ms/step
 4092it [30:17, 1.96it/s]
 1/1 [=====] - 0s 352ms/step
 4093it [30:17, 1.93it/s]
 1/1 [=====] - 0s 331ms/step
 4094it [30:18, 2.03it/s]
 1/1 [=====] - 0s 318ms/step
 4095it [30:18, 2.09it/s]
 1/1 [=====] - 0s 411ms/step
 4096it [30:19, 2.05it/s]
 1/1 [=====] - 0s 343ms/step
 4097it [30:19, 2.01it/s]
 1/1 [=====] - 0s 335ms/step

4098it [30:20, 2.02it/s]
 1/1 [=====] - 0s 337ms/step
 4099it [30:20, 2.04it/s]
 1/1 [=====] - 0s 423ms/step
 4100it [30:21, 1.92it/s]
 1/1 [=====] - 0s 376ms/step
 4101it [30:21, 1.92it/s]
 1/1 [=====] - 0s 344ms/step
 4102it [30:22, 1.89it/s]
 1/1 [=====] - 0s 404ms/step
 4103it [30:23, 1.87it/s]
 1/1 [=====] - 0s 341ms/step
 4104it [30:23, 1.89it/s]
 1/1 [=====] - 0s 349ms/step
 4105it [30:24, 1.92it/s]
 1/1 [=====] - 0s 344ms/step
 4106it [30:24, 1.94it/s]
 1/1 [=====] - 0s 324ms/step
 4107it [30:25, 1.99it/s]
 1/1 [=====] - 0s 367ms/step
 4108it [30:25, 1.92it/s]
 1/1 [=====] - 0s 335ms/step
 4109it [30:26, 1.96it/s]
 1/1 [=====] - 0s 401ms/step
 4110it [30:26, 1.90it/s]
 1/1 [=====] - 0s 328ms/step
 4111it [30:27, 2.00it/s]
 1/1 [=====] - 0s 338ms/step
 4112it [30:27, 2.04it/s]
 1/1 [=====] - 0s 400ms/step
 4113it [30:28, 1.97it/s]
 1/1 [=====] - 0s 337ms/step

4114it [30:28, 1.90it/s]
 1/1 [=====] - 0s 389ms/step
 4115it [30:29, 1.89it/s]
 1/1 [=====] - 0s 334ms/step
 4116it [30:29, 1.93it/s]
 1/1 [=====] - 0s 422ms/step
 4117it [30:30, 1.87it/s]
 1/1 [=====] - 0s 344ms/step
 4118it [30:30, 1.91it/s]
 1/1 [=====] - 0s 389ms/step
 4119it [30:31, 1.89it/s]
 1/1 [=====] - 0s 334ms/step
 4120it [30:31, 1.95it/s]
 1/1 [=====] - 0s 392ms/step
 4121it [30:32, 1.94it/s]
 1/1 [=====] - 0s 315ms/step
 4122it [30:32, 2.00it/s]
 1/1 [=====] - 0s 360ms/step
 4123it [30:33, 2.05it/s]
 1/1 [=====] - 0s 334ms/step
 4124it [30:33, 2.07it/s]
 1/1 [=====] - 0s 418ms/step
 4125it [30:34, 1.96it/s]
 1/1 [=====] - 0s 332ms/step
 4126it [30:34, 1.94it/s]
 1/1 [=====] - 0s 374ms/step
 4127it [30:35, 1.93it/s]
 1/1 [=====] - 0s 321ms/step
 4128it [30:35, 1.97it/s]
 1/1 [=====] - 0s 426ms/step
 4129it [30:36, 1.90it/s]
 1/1 [=====] - 0s 335ms/step

4130it [30:36, 1.91it/s]
 1/1 [=====] - 0s 350ms/step
 4131it [30:37, 1.94it/s]
 1/1 [=====] - 0s 326ms/step
 4132it [30:37, 2.01it/s]
 1/1 [=====] - 0s 393ms/step
 4133it [30:38, 2.01it/s]
 1/1 [=====] - 0s 329ms/step
 4134it [30:38, 2.06it/s]
 1/1 [=====] - 0s 355ms/step
 4135it [30:39, 2.10it/s]
 1/1 [=====] - 0s 296ms/step
 4136it [30:39, 2.17it/s]
 1/1 [=====] - 0s 433ms/step
 4137it [30:40, 2.06it/s]
 1/1 [=====] - 0s 328ms/step
 4138it [30:40, 2.06it/s]
 1/1 [=====] - 0s 365ms/step
 4139it [30:41, 2.02it/s]
 1/1 [=====] - 0s 342ms/step
 4140it [30:41, 1.98it/s]
 1/1 [=====] - 0s 345ms/step
 4141it [30:42, 1.99it/s]
 1/1 [=====] - 0s 342ms/step
 4142it [30:42, 1.99it/s]
 1/1 [=====] - 0s 411ms/step
 4143it [30:43, 1.92it/s]
 1/1 [=====] - 0s 341ms/step
 4144it [30:43, 1.94it/s]
 1/1 [=====] - 0s 355ms/step
 4145it [30:44, 1.96it/s]
 1/1 [=====] - 0s 407ms/step

4146it [30:44, 1.89it/s]
 1/1 [=====] - 0s 331ms/step
 4147it [30:45, 1.95it/s]
 1/1 [=====] - 0s 338ms/step
 4148it [30:45, 2.01it/s]
 1/1 [=====] - 0s 395ms/step
 4149it [30:46, 2.00it/s]
 1/1 [=====] - 0s 343ms/step
 4150it [30:46, 1.92it/s]
 1/1 [=====] - 0s 379ms/step
 4151it [30:47, 1.92it/s]
 1/1 [=====] - 0s 347ms/step
 4152it [30:47, 1.90it/s]
 1/1 [=====] - 0s 419ms/step
 4153it [30:48, 1.85it/s]
 1/1 [=====] - 0s 338ms/step
 4154it [30:49, 1.87it/s]
 1/1 [=====] - 0s 386ms/step
 4155it [30:49, 1.89it/s]
 1/1 [=====] - 0s 303ms/step
 4156it [30:50, 1.98it/s]
 1/1 [=====] - 0s 391ms/step
 4157it [30:50, 1.99it/s]
 1/1 [=====] - 0s 325ms/step
 4158it [30:50, 2.03it/s]
 1/1 [=====] - 0s 370ms/step
 4159it [30:51, 2.06it/s]
 1/1 [=====] - 0s 338ms/step
 4160it [30:51, 2.04it/s]
 1/1 [=====] - 0s 420ms/step
 4161it [30:52, 1.94it/s]
 1/1 [=====] - 0s 328ms/step

4162it [30:53, 1.93it/s]
 1/1 [=====] - 0s 370ms/step
 4163it [30:53, 1.93it/s]
 1/1 [=====] - 0s 338ms/step
 4164it [30:54, 1.95it/s]
 1/1 [=====] - 0s 393ms/step
 4165it [30:54, 1.92it/s]
 1/1 [=====] - 0s 332ms/step
 4166it [30:55, 1.94it/s]
 1/1 [=====] - 0s 362ms/step
 4167it [30:55, 1.92it/s]
 1/1 [=====] - 0s 330ms/step
 4168it [30:56, 1.95it/s]
 1/1 [=====] - 0s 404ms/step
 4169it [30:56, 1.90it/s]
 1/1 [=====] - 0s 345ms/step
 4170it [30:57, 1.89it/s]
 1/1 [=====] - 0s 359ms/step
 4171it [30:57, 1.91it/s]
 1/1 [=====] - 0s 410ms/step
 4172it [30:58, 1.85it/s]
 1/1 [=====] - 0s 378ms/step
 4173it [30:58, 1.85it/s]
 1/1 [=====] - 0s 337ms/step
 4174it [30:59, 1.84it/s]
 1/1 [=====] - 0s 399ms/step
 4175it [30:59, 1.86it/s]
 1/1 [=====] - 0s 317ms/step
 4176it [31:00, 1.93it/s]
 1/1 [=====] - 0s 371ms/step
 4177it [31:00, 1.96it/s]
 1/1 [=====] - 0s 334ms/step

4178it [31:01, 2.00it/s]
 1/1 [=====] - 0s 452ms/step
 4179it [31:01, 1.90it/s]
 1/1 [=====] - 0s 359ms/step
 4180it [31:02, 1.90it/s]
 1/1 [=====] - 0s 383ms/step
 4181it [31:03, 1.88it/s]
 1/1 [=====] - 0s 347ms/step
 4182it [31:03, 1.89it/s]
 1/1 [=====] - 0s 420ms/step
 4183it [31:04, 1.85it/s]
 1/1 [=====] - 0s 354ms/step
 4184it [31:04, 1.87it/s]
 1/1 [=====] - 0s 366ms/step
 4185it [31:05, 1.89it/s]
 1/1 [=====] - 0s 343ms/step
 4186it [31:05, 1.83it/s]
 1/1 [=====] - 0s 371ms/step
 4187it [31:06, 1.86it/s]
 1/1 [=====] - 0s 331ms/step
 4188it [31:06, 1.89it/s]
 1/1 [=====] - 0s 344ms/step
 4189it [31:07, 1.92it/s]
 1/1 [=====] - 0s 380ms/step
 4190it [31:07, 1.86it/s]
 1/1 [=====] - 0s 354ms/step
 4191it [31:08, 1.92it/s]
 1/1 [=====] - 0s 360ms/step
 4192it [31:08, 1.91it/s]
 1/1 [=====] - 0s 411ms/step
 4193it [31:09, 1.90it/s]
 1/1 [=====] - 0s 392ms/step

4194it [31:09, 1.89it/s]
 1/1 [=====] - 0s 366ms/step
 4195it [31:10, 1.89it/s]
 1/1 [=====] - 0s 424ms/step
 4196it [31:11, 1.83it/s]
 1/1 [=====] - 0s 316ms/step
 4197it [31:11, 1.90it/s]
 1/1 [=====] - 0s 334ms/step
 4198it [31:12, 1.91it/s]
 1/1 [=====] - 0s 404ms/step
 4199it [31:12, 1.85it/s]
 1/1 [=====] - 0s 343ms/step
 4200it [31:13, 1.89it/s]
 1/1 [=====] - 0s 371ms/step
 4201it [31:13, 1.84it/s]
 1/1 [=====] - 0s 316ms/step
 4202it [31:14, 1.92it/s]
 1/1 [=====] - 0s 386ms/step
 4203it [31:14, 1.89it/s]
 1/1 [=====] - 0s 354ms/step
 4204it [31:15, 1.88it/s]
 1/1 [=====] - 0s 350ms/step
 4205it [31:15, 1.91it/s]
 1/1 [=====] - 0s 387ms/step
 4206it [31:16, 1.88it/s]
 1/1 [=====] - 0s 411ms/step
 4207it [31:16, 1.85it/s]
 1/1 [=====] - 0s 377ms/step
 4208it [31:17, 1.90it/s]
 1/1 [=====] - 0s 394ms/step
 4209it [31:17, 1.86it/s]
 1/1 [=====] - 0s 341ms/step

4210it [31:18, 1.87it/s]
 1/1 [=====] - 0s 384ms/step
 4211it [31:19, 1.79it/s]
 1/1 [=====] - 0s 334ms/step
 4212it [31:19, 1.86it/s]
 1/1 [=====] - 0s 453ms/step
 4213it [31:20, 1.78it/s]
 1/1 [=====] - 0s 352ms/step
 4214it [31:20, 1.83it/s]
 1/1 [=====] - 0s 365ms/step
 4215it [31:21, 1.86it/s]
 1/1 [=====] - 0s 413ms/step
 4216it [31:21, 1.80it/s]
 1/1 [=====] - 0s 336ms/step
 4217it [31:22, 1.87it/s]
 1/1 [=====] - 0s 360ms/step
 4218it [31:22, 1.88it/s]
 1/1 [=====] - 0s 332ms/step
 4219it [31:23, 1.93it/s]
 1/1 [=====] - 0s 454ms/step
 4220it [31:23, 1.83it/s]
 1/1 [=====] - 0s 340ms/step
 4221it [31:24, 1.91it/s]
 1/1 [=====] - 0s 390ms/step
 4222it [31:24, 1.89it/s]
 1/1 [=====] - 0s 405ms/step
 4223it [31:25, 1.88it/s]
 1/1 [=====] - 0s 359ms/step
 4224it [31:25, 1.93it/s]
 1/1 [=====] - 0s 340ms/step
 4225it [31:26, 1.95it/s]
 1/1 [=====] - 0s 362ms/step

4226it [31:26, 1.95it/s]
 1/1 [=====] - 0s 361ms/step
 4227it [31:27, 1.89it/s]
 1/1 [=====] - 0s 332ms/step
 4228it [31:28, 1.94it/s]
 1/1 [=====] - 0s 403ms/step
 4229it [31:28, 1.86it/s]
 1/1 [=====] - 0s 385ms/step
 4230it [31:29, 1.78it/s]
 1/1 [=====] - 0s 320ms/step
 4231it [31:29, 1.87it/s]
 1/1 [=====] - 0s 394ms/step
 4232it [31:30, 1.85it/s]
 1/1 [=====] - 0s 403ms/step
 4233it [31:30, 1.83it/s]
 1/1 [=====] - 0s 334ms/step
 4234it [31:31, 1.84it/s]
 1/1 [=====] - 0s 427ms/step
 4235it [31:31, 1.81it/s]
 1/1 [=====] - 0s 408ms/step
 4236it [31:32, 1.81it/s]
 1/1 [=====] - 0s 316ms/step
 4237it [31:32, 1.93it/s]
 1/1 [=====] - 0s 485ms/step
 4238it [31:33, 1.85it/s]
 1/1 [=====] - 0s 421ms/step
 4239it [31:34, 1.78it/s]
 1/1 [=====] - 0s 358ms/step
 4240it [31:34, 1.82it/s]
 1/1 [=====] - 0s 377ms/step
 4241it [31:35, 1.83it/s]
 1/1 [=====] - 1s 521ms/step

4242it [31:35, 1.65it/s]
 1/1 [=====] - 0s 406ms/step
 4243it [31:36, 1.67it/s]
 1/1 [=====] - 0s 365ms/step
 4244it [31:37, 1.70it/s]
 1/1 [=====] - 0s 492ms/step
 4245it [31:37, 1.64it/s]
 1/1 [=====] - 0s 410ms/step
 4246it [31:38, 1.58it/s]
 1/1 [=====] - 0s 354ms/step
 4247it [31:38, 1.67it/s]
 1/1 [=====] - 0s 360ms/step
 4248it [31:39, 1.74it/s]
 1/1 [=====] - 0s 390ms/step
 4249it [31:39, 1.77it/s]
 1/1 [=====] - 0s 438ms/step
 4250it [31:40, 1.71it/s]
 1/1 [=====] - 0s 311ms/step
 4251it [31:41, 1.85it/s]
 1/1 [=====] - 0s 301ms/step
 4252it [31:41, 1.98it/s]
 1/1 [=====] - 0s 451ms/step
 4253it [31:42, 1.90it/s]
 1/1 [=====] - 0s 408ms/step
 4254it [31:42, 1.88it/s]
 1/1 [=====] - 0s 325ms/step
 4255it [31:43, 1.94it/s]
 1/1 [=====] - 0s 417ms/step
 4256it [31:43, 1.88it/s]
 1/1 [=====] - 0s 406ms/step
 4257it [31:44, 1.83it/s]
 1/1 [=====] - 0s 374ms/step

4258it [31:44, 1.77it/s]
 1/1 [=====] - 0s 335ms/step
 4259it [31:45, 1.85it/s]
 1/1 [=====] - 0s 360ms/step
 4260it [31:45, 1.83it/s]
 1/1 [=====] - 0s 387ms/step
 4261it [31:46, 1.82it/s]
 1/1 [=====] - 0s 347ms/step
 4262it [31:46, 1.83it/s]
 1/1 [=====] - 0s 362ms/step
 4263it [31:47, 1.86it/s]
 1/1 [=====] - 0s 355ms/step
 4264it [31:47, 1.88it/s]
 1/1 [=====] - 0s 376ms/step
 4265it [31:48, 1.86it/s]
 1/1 [=====] - 0s 381ms/step
 4266it [31:49, 1.80it/s]
 1/1 [=====] - 0s 388ms/step
 4267it [31:49, 1.84it/s]
 1/1 [=====] - 0s 422ms/step
 4268it [31:50, 1.81it/s]
 1/1 [=====] - 0s 375ms/step
 4269it [31:50, 1.86it/s]
 1/1 [=====] - 0s 373ms/step
 4270it [31:51, 1.83it/s]
 1/1 [=====] - 0s 344ms/step
 4271it [31:51, 1.86it/s]
 1/1 [=====] - 0s 360ms/step
 4272it [31:52, 1.84it/s]
 1/1 [=====] - 0s 358ms/step
 4273it [31:52, 1.86it/s]
 1/1 [=====] - 0s 347ms/step

4274it [31:53, 1.88it/s]
 1/1 [=====] - 0s 369ms/step
 4275it [31:53, 1.85it/s]
 1/1 [=====] - 0s 337ms/step
 4276it [31:54, 1.87it/s]
 1/1 [=====] - 0s 359ms/step
 4277it [31:55, 1.88it/s]
 1/1 [=====] - 0s 360ms/step
 4278it [31:55, 1.86it/s]
 1/1 [=====] - 0s 341ms/step
 4279it [31:56, 1.89it/s]
 1/1 [=====] - 0s 369ms/step
 4280it [31:56, 1.88it/s]
 1/1 [=====] - 0s 338ms/step
 4281it [31:57, 1.90it/s]
 1/1 [=====] - 0s 348ms/step
 4282it [31:57, 1.91it/s]
 1/1 [=====] - 0s 422ms/step
 4283it [31:58, 1.87it/s]
 1/1 [=====] - 0s 351ms/step
 4284it [31:58, 1.91it/s]
 1/1 [=====] - 0s 371ms/step
 4285it [31:59, 1.90it/s]
 1/1 [=====] - 0s 460ms/step
 4286it [31:59, 1.79it/s]
 1/1 [=====] - 0s 356ms/step
 4287it [32:00, 1.83it/s]
 1/1 [=====] - 0s 364ms/step
 4288it [32:00, 1.85it/s]
 1/1 [=====] - 0s 343ms/step
 4289it [32:01, 1.90it/s]
 1/1 [=====] - 0s 375ms/step

4290it [32:02, 1.80it/s]
 1/1 [=====] - 0s 312ms/step
 4291it [32:02, 1.89it/s]
 1/1 [=====] - 0s 366ms/step
 4292it [32:03, 1.89it/s]
 1/1 [=====] - 0s 354ms/step
 4293it [32:03, 1.83it/s]
 1/1 [=====] - 0s 353ms/step
 4294it [32:04, 1.83it/s]
 1/1 [=====] - 0s 375ms/step
 4295it [32:04, 1.82it/s]
 1/1 [=====] - 0s 312ms/step
 4296it [32:05, 1.95it/s]
 1/1 [=====] - 0s 377ms/step
 4297it [32:05, 1.90it/s]
 1/1 [=====] - 0s 288ms/step
 4298it [32:06, 2.01it/s]
 1/1 [=====] - 0s 461ms/step
 4299it [32:06, 1.90it/s]
 1/1 [=====] - 0s 337ms/step
 4300it [32:07, 1.92it/s]
 1/1 [=====] - 0s 340ms/step
 4301it [32:07, 1.95it/s]
 1/1 [=====] - 0s 415ms/step
 4302it [32:08, 1.87it/s]
 1/1 [=====] - 0s 391ms/step
 4303it [32:08, 1.86it/s]
 1/1 [=====] - 0s 347ms/step
 4304it [32:09, 1.90it/s]
 1/1 [=====] - 0s 418ms/step
 4305it [32:09, 1.83it/s]
 1/1 [=====] - 0s 332ms/step

4306it [32:10, 1.85it/s]
 1/1 [=====] - 0s 345ms/step
 4307it [32:10, 1.90it/s]
 1/1 [=====] - 0s 346ms/step
 4308it [32:11, 1.84it/s]
 1/1 [=====] - 0s 420ms/step
 4309it [32:12, 1.79it/s]
 1/1 [=====] - 0s 345ms/step
 4310it [32:12, 1.84it/s]
 1/1 [=====] - 0s 404ms/step
 4311it [32:13, 1.87it/s]
 1/1 [=====] - 0s 342ms/step
 4312it [32:13, 1.94it/s]
 1/1 [=====] - 0s 351ms/step
 4313it [32:14, 1.94it/s]
 1/1 [=====] - 0s 332ms/step
 4314it [32:14, 1.95it/s]
 1/1 [=====] - 0s 352ms/step
 4315it [32:15, 1.96it/s]
 1/1 [=====] - 0s 366ms/step
 4316it [32:15, 1.93it/s]
 1/1 [=====] - 0s 409ms/step
 4317it [32:16, 1.87it/s]
 1/1 [=====] - 0s 421ms/step
 4318it [32:16, 1.78it/s]
 1/1 [=====] - 0s 334ms/step
 4319it [32:17, 1.85it/s]
 1/1 [=====] - 0s 359ms/step
 4320it [32:17, 1.87it/s]
 1/1 [=====] - 0s 391ms/step
 4321it [32:18, 1.86it/s]
 1/1 [=====] - 0s 406ms/step

4322it [32:19, 1.82it/s]
 1/1 [=====] - 0s 313ms/step
 4323it [32:19, 1.90it/s]
 1/1 [=====] - 0s 357ms/step
 4324it [32:20, 1.91it/s]
 1/1 [=====] - 0s 406ms/step
 4325it [32:20, 1.85it/s]
 1/1 [=====] - 0s 325ms/step
 4326it [32:21, 1.91it/s]
 1/1 [=====] - 0s 385ms/step
 4327it [32:21, 1.87it/s]
 1/1 [=====] - 0s 302ms/step
 4328it [32:22, 2.00it/s]
 1/1 [=====] - 0s 361ms/step
 4329it [32:22, 2.02it/s]
 1/1 [=====] - 0s 448ms/step
 4330it [32:23, 1.88it/s]
 1/1 [=====] - 0s 359ms/step
 4331it [32:23, 1.88it/s]
 1/1 [=====] - 0s 316ms/step
 4332it [32:24, 1.95it/s]
 1/1 [=====] - 0s 353ms/step
 4333it [32:24, 1.96it/s]
 1/1 [=====] - 0s 390ms/step
 4334it [32:25, 1.85it/s]
 1/1 [=====] - 0s 372ms/step
 4335it [32:25, 1.82it/s]
 1/1 [=====] - 0s 321ms/step
 4336it [32:26, 1.89it/s]
 1/1 [=====] - 0s 328ms/step
 4337it [32:26, 1.94it/s]
 1/1 [=====] - 0s 439ms/step

4338it [32:27, 1.84it/s]
 1/1 [=====] - 0s 415ms/step
 4339it [32:28, 1.81it/s]
 1/1 [=====] - 0s 337ms/step
 4340it [32:28, 1.87it/s]
 1/1 [=====] - 0s 323ms/step
 4341it [32:28, 1.93it/s]
 1/1 [=====] - 0s 378ms/step
 4342it [32:29, 1.85it/s]
 1/1 [=====] - 0s 348ms/step
 4343it [32:30, 1.88it/s]
 1/1 [=====] - 0s 303ms/step
 4344it [32:30, 1.93it/s]
 1/1 [=====] - 0s 314ms/step
 4345it [32:31, 2.03it/s]
 1/1 [=====] - 0s 384ms/step
 4346it [32:31, 1.97it/s]
 1/1 [=====] - 0s 419ms/step
 4347it [32:32, 1.91it/s]
 1/1 [=====] - 0s 318ms/step
 4348it [32:32, 2.02it/s]
 1/1 [=====] - 0s 331ms/step
 4349it [32:32, 2.09it/s]
 1/1 [=====] - 0s 315ms/step
 4350it [32:33, 2.14it/s]
 1/1 [=====] - 0s 395ms/step
 4351it [32:33, 2.03it/s]
 1/1 [=====] - 0s 337ms/step
 4352it [32:34, 2.02it/s]
 1/1 [=====] - 0s 332ms/step
 4353it [32:34, 2.04it/s]
 1/1 [=====] - 0s 360ms/step

4354it [32:35, 1.97it/s]
 1/1 [=====] - 0s 362ms/step
 4355it [32:36, 1.93it/s]
 1/1 [=====] - 0s 324ms/step
 4356it [32:36, 1.97it/s]
 1/1 [=====] - 0s 375ms/step
 4357it [32:37, 1.95it/s]
 1/1 [=====] - 0s 401ms/step
 4358it [32:37, 1.90it/s]
 1/1 [=====] - 0s 327ms/step
 4359it [32:38, 1.95it/s]
 1/1 [=====] - 0s 391ms/step
 4360it [32:38, 1.92it/s]
 1/1 [=====] - 0s 383ms/step
 4361it [32:39, 1.89it/s]
 1/1 [=====] - 0s 341ms/step
 4362it [32:39, 1.90it/s]
 1/1 [=====] - 0s 370ms/step
 4363it [32:40, 1.96it/s]
 1/1 [=====] - 0s 366ms/step
 4364it [32:40, 1.92it/s]
 1/1 [=====] - 0s 337ms/step
 4365it [32:41, 1.88it/s]
 1/1 [=====] - 0s 331ms/step
 4366it [32:41, 1.87it/s]
 1/1 [=====] - 0s 375ms/step
 4367it [32:42, 1.87it/s]
 1/1 [=====] - 0s 348ms/step
 4368it [32:42, 1.83it/s]
 1/1 [=====] - 0s 328ms/step
 4369it [32:43, 1.90it/s]
 1/1 [=====] - 0s 430ms/step

4370it [32:43, 1.85it/s]
 1/1 [=====] - 0s 404ms/step
 4371it [32:44, 1.83it/s]
 1/1 [=====] - 0s 355ms/step
 4372it [32:45, 1.87it/s]
 1/1 [=====] - 0s 336ms/step
 4373it [32:45, 1.93it/s]
 1/1 [=====] - 0s 400ms/step
 4374it [32:46, 1.84it/s]
 1/1 [=====] - 0s 371ms/step
 4375it [32:46, 1.84it/s]
 1/1 [=====] - 0s 325ms/step
 4376it [32:47, 1.91it/s]
 1/1 [=====] - 0s 338ms/step
 4377it [32:47, 2.01it/s]
 1/1 [=====] - 0s 339ms/step
 4378it [32:48, 1.95it/s]
 1/1 [=====] - 0s 362ms/step
 4379it [32:48, 1.89it/s]
 1/1 [=====] - 0s 306ms/step
 4380it [32:49, 2.01it/s]
 1/1 [=====] - 0s 368ms/step
 4381it [32:49, 2.02it/s]
 1/1 [=====] - 0s 325ms/step
 4382it [32:50, 2.05it/s]
 1/1 [=====] - 0s 342ms/step
 4383it [32:50, 2.07it/s]
 1/1 [=====] - 0s 431ms/step
 4384it [32:51, 1.95it/s]
 1/1 [=====] - 0s 339ms/step
 4385it [32:51, 1.95it/s]
 1/1 [=====] - 0s 321ms/step

4386it [32:52, 2.00it/s]
 1/1 [=====] - 0s 361ms/step
 4387it [32:52, 1.98it/s]
 1/1 [=====] - 0s 313ms/step
 4388it [32:53, 2.02it/s]
 1/1 [=====] - 0s 455ms/step
 4389it [32:53, 1.90it/s]
 1/1 [=====] - 0s 321ms/step
 4390it [32:54, 1.87it/s]
 1/1 [=====] - 0s 322ms/step
 4391it [32:54, 1.95it/s]
 1/1 [=====] - 0s 376ms/step
 4392it [32:55, 1.92it/s]
 1/1 [=====] - 0s 433ms/step
 4393it [32:55, 1.85it/s]
 1/1 [=====] - 0s 374ms/step
 4394it [32:56, 1.87it/s]
 1/1 [=====] - 0s 324ms/step
 4395it [32:56, 1.95it/s]
 1/1 [=====] - 0s 336ms/step
 4396it [32:57, 2.02it/s]
 1/1 [=====] - 0s 397ms/step
 4397it [32:57, 1.95it/s]
 1/1 [=====] - 0s 341ms/step
 4398it [32:58, 1.97it/s]
 1/1 [=====] - 0s 340ms/step
 4399it [32:58, 1.98it/s]
 1/1 [=====] - 0s 345ms/step
 4400it [32:59, 1.99it/s]
 1/1 [=====] - 0s 341ms/step
 4401it [32:59, 2.00it/s]
 1/1 [=====] - 0s 319ms/step

4402it [33:00, 1.98it/s]
 1/1 [=====] - 0s 347ms/step
 4403it [33:00, 2.03it/s]
 1/1 [=====] - 0s 332ms/step
 4404it [33:01, 2.07it/s]
 1/1 [=====] - 0s 370ms/step
 4405it [33:01, 1.98it/s]
 1/1 [=====] - 0s 371ms/step
 4406it [33:02, 1.96it/s]
 1/1 [=====] - 0s 361ms/step
 4407it [33:02, 1.95it/s]
 1/1 [=====] - 0s 331ms/step
 4408it [33:03, 1.95it/s]
 1/1 [=====] - 0s 368ms/step
 4409it [33:03, 1.94it/s]
 1/1 [=====] - 0s 365ms/step
 4410it [33:04, 1.93it/s]
 1/1 [=====] - 0s 363ms/step
 4411it [33:04, 1.89it/s]
 1/1 [=====] - 0s 352ms/step
 4412it [33:05, 1.90it/s]
 1/1 [=====] - 0s 353ms/step
 4413it [33:06, 1.92it/s]
 1/1 [=====] - 0s 348ms/step
 4414it [33:06, 1.85it/s]
 1/1 [=====] - 0s 345ms/step
 4415it [33:07, 1.89it/s]
 1/1 [=====] - 0s 343ms/step
 4416it [33:07, 1.91it/s]
 1/1 [=====] - 0s 336ms/step
 4417it [33:08, 1.91it/s]
 1/1 [=====] - 0s 361ms/step

4418it [33:08, 1.92it/s]
 1/1 [=====] - 0s 333ms/step
 4419it [33:09, 1.98it/s]
 1/1 [=====] - 0s 367ms/step
 4420it [33:09, 1.97it/s]
 1/1 [=====] - 0s 331ms/step
 4421it [33:10, 2.04it/s]
 1/1 [=====] - 0s 394ms/step
 4422it [33:10, 2.01it/s]
 1/1 [=====] - 0s 351ms/step
 4423it [33:11, 1.99it/s]
 1/1 [=====] - 0s 360ms/step
 4424it [33:11, 1.98it/s]
 1/1 [=====] - 0s 415ms/step
 4425it [33:12, 1.90it/s]
 1/1 [=====] - 0s 342ms/step
 4426it [33:12, 1.89it/s]
 1/1 [=====] - 0s 345ms/step
 4427it [33:13, 1.92it/s]
 1/1 [=====] - 0s 409ms/step
 4428it [33:13, 1.87it/s]
 1/1 [=====] - 0s 355ms/step
 4429it [33:14, 1.89it/s]
 1/1 [=====] - 0s 368ms/step
 4430it [33:14, 1.88it/s]
 1/1 [=====] - 0s 425ms/step
 4431it [33:15, 1.82it/s]
 1/1 [=====] - 0s 359ms/step
 4432it [33:15, 1.84it/s]
 1/1 [=====] - 0s 348ms/step
 4433it [33:16, 1.84it/s]
 1/1 [=====] - 0s 338ms/step

4434it [33:16, 1.92it/s]
 1/1 [=====] - 0s 349ms/step
 4435it [33:17, 1.92it/s]
 1/1 [=====] - 0s 320ms/step
 4436it [33:17, 2.00it/s]
 1/1 [=====] - 0s 384ms/step
 4437it [33:18, 2.00it/s]
 1/1 [=====] - 0s 350ms/step
 4438it [33:18, 1.95it/s]
 1/1 [=====] - 0s 362ms/step
 4439it [33:19, 1.95it/s]
 1/1 [=====] - 0s 352ms/step
 4440it [33:20, 1.95it/s]
 1/1 [=====] - 0s 347ms/step
 4441it [33:20, 1.92it/s]
 1/1 [=====] - 0s 343ms/step
 4442it [33:21, 1.94it/s]
 1/1 [=====] - 0s 443ms/step
 4443it [33:21, 1.84it/s]
 1/1 [=====] - 0s 339ms/step
 4444it [33:22, 1.88it/s]
 1/1 [=====] - 0s 355ms/step
 4445it [33:22, 1.89it/s]
 1/1 [=====] - 0s 335ms/step
 4446it [33:23, 1.93it/s]
 1/1 [=====] - 0s 350ms/step
 4447it [33:23, 1.95it/s]
 1/1 [=====] - 0s 394ms/step
 4448it [33:24, 1.91it/s]
 1/1 [=====] - 0s 359ms/step
 4449it [33:24, 1.93it/s]
 1/1 [=====] - 0s 406ms/step

4450it [33:25, 1.90it/s]
 1/1 [=====] - 0s 328ms/step
 4451it [33:25, 1.99it/s]
 1/1 [=====] - 0s 298ms/step
 4452it [33:26, 2.12it/s]
 1/1 [=====] - 0s 449ms/step
 4453it [33:26, 2.02it/s]
 1/1 [=====] - 0s 315ms/step
 4454it [33:27, 2.10it/s]
 1/1 [=====] - 0s 308ms/step
 4455it [33:27, 2.19it/s]
 1/1 [=====] - 0s 424ms/step
 4456it [33:28, 2.04it/s]
 1/1 [=====] - 0s 363ms/step
 4457it [33:28, 2.08it/s]
 1/1 [=====] - 0s 405ms/step
 4458it [33:29, 1.97it/s]
 1/1 [=====] - 0s 328ms/step
 4459it [33:29, 2.01it/s]
 1/1 [=====] - 0s 368ms/step
 4460it [33:30, 1.97it/s]
 1/1 [=====] - 0s 353ms/step
 4461it [33:30, 1.92it/s]
 1/1 [=====] - 0s 317ms/step
 4462it [33:31, 1.93it/s]
 1/1 [=====] - 0s 370ms/step
 4463it [33:31, 1.93it/s]
 1/1 [=====] - 0s 404ms/step
 4464it [33:32, 1.87it/s]
 1/1 [=====] - 0s 325ms/step
 4465it [33:32, 1.93it/s]
 1/1 [=====] - 0s 401ms/step

4466it [33:33, 1.90it/s]
 1/1 [=====] - 0s 409ms/step
 4467it [33:33, 1.85it/s]
 1/1 [=====] - 0s 404ms/step
 4468it [33:34, 1.83it/s]
 1/1 [=====] - 0s 329ms/step
 4469it [33:34, 1.91it/s]
 1/1 [=====] - 0s 395ms/step
 4470it [33:35, 1.87it/s]
 1/1 [=====] - 0s 366ms/step
 4471it [33:36, 1.83it/s]
 1/1 [=====] - 0s 318ms/step
 4472it [33:36, 1.92it/s]
 1/1 [=====] - 0s 446ms/step
 4473it [33:37, 1.88it/s]
 1/1 [=====] - 0s 448ms/step
 4474it [33:37, 1.81it/s]
 1/1 [=====] - 0s 301ms/step
 4475it [33:38, 1.92it/s]
 1/1 [=====] - 0s 365ms/step
 4476it [33:38, 1.92it/s]
 1/1 [=====] - 0s 325ms/step
 4477it [33:39, 1.94it/s]
 1/1 [=====] - 0s 384ms/step
 4478it [33:39, 1.92it/s]
 1/1 [=====] - 0s 370ms/step
 4479it [33:40, 1.88it/s]
 1/1 [=====] - 0s 346ms/step
 4480it [33:40, 1.92it/s]
 1/1 [=====] - 0s 429ms/step
 4481it [33:41, 1.84it/s]
 1/1 [=====] - 0s 346ms/step

4482it [33:41, 1.89it/s]
 1/1 [=====] - 0s 403ms/step
 4483it [33:42, 1.85it/s]
 1/1 [=====] - 0s 329ms/step
 4484it [33:42, 1.91it/s]
 1/1 [=====] - 0s 327ms/step
 4485it [33:43, 1.96it/s]
 1/1 [=====] - 0s 428ms/step
 4486it [33:43, 1.84it/s]
 1/1 [=====] - 0s 335ms/step
 4487it [33:44, 1.94it/s]
 1/1 [=====] - 0s 369ms/step
 4488it [33:44, 1.97it/s]
 1/1 [=====] - 0s 321ms/step
 4489it [33:45, 2.06it/s]
 1/1 [=====] - 0s 411ms/step
 4490it [33:45, 2.01it/s]
 1/1 [=====] - 0s 329ms/step
 4491it [33:46, 2.07it/s]
 1/1 [=====] - 0s 341ms/step
 4492it [33:46, 2.06it/s]
 1/1 [=====] - 0s 417ms/step
 4493it [33:47, 1.95it/s]
 1/1 [=====] - 0s 379ms/step
 4494it [33:47, 1.92it/s]
 1/1 [=====] - 0s 347ms/step
 4495it [33:48, 1.93it/s]
 1/1 [=====] - 0s 303ms/step
 4496it [33:48, 2.01it/s]
 1/1 [=====] - 0s 352ms/step
 4497it [33:49, 2.00it/s]
 1/1 [=====] - 0s 350ms/step

4498it [33:49, 1.93it/s]
 1/1 [=====] - 0s 387ms/step
 4499it [33:50, 1.90it/s]
 1/1 [=====] - 0s 313ms/step
 4500it [33:50, 1.98it/s]
 1/1 [=====] - 0s 358ms/step
 4501it [33:51, 1.97it/s]
 1/1 [=====] - 0s 425ms/step
 4502it [33:52, 1.86it/s]
 1/1 [=====] - 0s 333ms/step
 4503it [33:52, 1.91it/s]
 1/1 [=====] - 0s 298ms/step
 4504it [33:52, 2.04it/s]
 1/1 [=====] - 0s 423ms/step
 4505it [33:53, 1.98it/s]
 1/1 [=====] - 0s 407ms/step
 4506it [33:54, 1.95it/s]
 1/1 [=====] - 0s 321ms/step
 4507it [33:54, 2.02it/s]
 1/1 [=====] - 0s 314ms/step
 4508it [33:54, 2.05it/s]
 1/1 [=====] - 0s 373ms/step
 4509it [33:55, 2.02it/s]
 1/1 [=====] - 0s 366ms/step
 4510it [33:56, 1.93it/s]
 1/1 [=====] - 0s 324ms/step
 4511it [33:56, 1.96it/s]
 1/1 [=====] - 0s 313ms/step
 4512it [33:57, 2.02it/s]
 1/1 [=====] - 0s 424ms/step
 4513it [33:57, 1.93it/s]
 1/1 [=====] - 0s 367ms/step

4514it [33:58, 1.92it/s]
 1/1 [=====] - 0s 346ms/step
 4515it [33:58, 1.94it/s]
 1/1 [=====] - 0s 330ms/step
 4516it [33:59, 1.99it/s]
 1/1 [=====] - 0s 364ms/step
 4517it [33:59, 1.96it/s]
 1/1 [=====] - 0s 396ms/step
 4518it [34:00, 1.89it/s]
 1/1 [=====] - 0s 335ms/step
 4519it [34:00, 1.91it/s]
 1/1 [=====] - 0s 317ms/step
 4520it [34:01, 1.98it/s]
 1/1 [=====] - 0s 406ms/step
 4521it [34:01, 1.94it/s]
 1/1 [=====] - 0s 347ms/step
 4522it [34:02, 1.95it/s]
 1/1 [=====] - 0s 338ms/step
 4523it [34:02, 1.97it/s]
 1/1 [=====] - 0s 299ms/step
 4524it [34:03, 2.07it/s]
 1/1 [=====] - 0s 416ms/step
 4525it [34:03, 2.02it/s]
 1/1 [=====] - 0s 356ms/step
 4526it [34:04, 1.96it/s]
 1/1 [=====] - 0s 356ms/step
 4527it [34:04, 1.96it/s]
 1/1 [=====] - 0s 320ms/step
 4528it [34:05, 2.01it/s]
 1/1 [=====] - 0s 374ms/step
 4529it [34:05, 1.97it/s]
 1/1 [=====] - 0s 353ms/step

4530it [34:06, 1.96it/s]
 1/1 [=====] - 0s 339ms/step
 4531it [34:06, 1.99it/s]
 1/1 [=====] - 0s 315ms/step
 4532it [34:07, 2.03it/s]
 1/1 [=====] - 0s 414ms/step
 4533it [34:07, 1.95it/s]
 1/1 [=====] - 0s 400ms/step
 4534it [34:08, 1.85it/s]
 1/1 [=====] - 0s 329ms/step
 4535it [34:08, 1.91it/s]
 1/1 [=====] - 0s 327ms/step
 4536it [34:09, 1.95it/s]
 1/1 [=====] - 0s 427ms/step
 4537it [34:09, 1.89it/s]
 1/1 [=====] - 0s 352ms/step
 4538it [34:10, 1.90it/s]
 1/1 [=====] - 0s 312ms/step
 4539it [34:10, 1.92it/s]
 1/1 [=====] - 0s 316ms/step
 4540it [34:11, 2.03it/s]
 1/1 [=====] - 0s 379ms/step
 4541it [34:11, 2.04it/s]
 1/1 [=====] - 0s 342ms/step
 4542it [34:12, 2.07it/s]
 1/1 [=====] - 0s 357ms/step
 4543it [34:12, 2.09it/s]
 1/1 [=====] - 0s 300ms/step
 4544it [34:13, 2.18it/s]
 1/1 [=====] - 0s 354ms/step
 4545it [34:13, 2.17it/s]
 1/1 [=====] - 0s 332ms/step

4546it [34:14, 2.15it/s]
 1/1 [=====] - 0s 354ms/step
 4547it [34:14, 2.11it/s]
 1/1 [=====] - 0s 321ms/step
 4548it [34:15, 2.14it/s]
 1/1 [=====] - 0s 353ms/step
 4549it [34:15, 2.11it/s]
 1/1 [=====] - 0s 347ms/step
 4550it [34:16, 2.10it/s]
 1/1 [=====] - 0s 330ms/step
 4551it [34:16, 2.09it/s]
 1/1 [=====] - 0s 446ms/step
 4552it [34:17, 1.94it/s]
 1/1 [=====] - 0s 374ms/step
 4553it [34:17, 1.91it/s]
 1/1 [=====] - 0s 336ms/step
 4554it [34:18, 1.94it/s]
 1/1 [=====] - 0s 368ms/step
 4555it [34:18, 1.94it/s]
 1/1 [=====] - 0s 445ms/step
 4556it [34:19, 1.85it/s]
 1/1 [=====] - 0s 327ms/step
 4557it [34:19, 1.92it/s]
 1/1 [=====] - 0s 310ms/step
 4558it [34:20, 1.96it/s]
 1/1 [=====] - 0s 436ms/step
 4559it [34:20, 1.87it/s]
 1/1 [=====] - 0s 407ms/step
 4560it [34:21, 1.84it/s]
 1/1 [=====] - 0s 325ms/step
 4561it [34:21, 1.91it/s]
 1/1 [=====] - 0s 290ms/step

4562it [34:22, 2.01it/s]
 1/1 [=====] - 0s 389ms/step
 4563it [34:22, 2.00it/s]
 1/1 [=====] - 0s 350ms/step
 4564it [34:23, 2.04it/s]
 1/1 [=====] - 0s 338ms/step
 4565it [34:23, 2.02it/s]
 1/1 [=====] - 0s 317ms/step
 4566it [34:24, 2.10it/s]
 1/1 [=====] - 0s 361ms/step
 4567it [34:24, 2.06it/s]
 1/1 [=====] - 0s 418ms/step
 4568it [34:25, 1.94it/s]
 1/1 [=====] - 0s 334ms/step
 4569it [34:25, 1.96it/s]
 1/1 [=====] - 0s 387ms/step
 4570it [34:26, 1.89it/s]
 1/1 [=====] - 0s 346ms/step
 4571it [34:26, 1.92it/s]
 1/1 [=====] - 0s 337ms/step
 4572it [34:27, 1.94it/s]
 1/1 [=====] - 0s 351ms/step
 4573it [34:27, 1.92it/s]
 1/1 [=====] - 0s 313ms/step
 4574it [34:28, 1.98it/s]
 1/1 [=====] - 0s 422ms/step
 4575it [34:28, 1.90it/s]
 1/1 [=====] - 0s 351ms/step
 4576it [34:29, 1.93it/s]
 1/1 [=====] - 0s 374ms/step
 4577it [34:30, 1.88it/s]
 1/1 [=====] - 0s 383ms/step

4578it [34:30, 1.92it/s]
 1/1 [=====] - 0s 294ms/step
 4579it [34:30, 2.07it/s]
 1/1 [=====] - 0s 331ms/step
 4580it [34:31, 2.11it/s]
 1/1 [=====] - 0s 345ms/step
 4581it [34:31, 2.13it/s]
 1/1 [=====] - 0s 353ms/step
 4582it [34:32, 2.03it/s]
 1/1 [=====] - 0s 315ms/step
 4583it [34:32, 2.00it/s]
 1/1 [=====] - 0s 320ms/step
 4584it [34:33, 2.04it/s]
 1/1 [=====] - 0s 374ms/step
 4585it [34:33, 1.99it/s]
 1/1 [=====] - 0s 339ms/step
 4586it [34:34, 2.00it/s]
 1/1 [=====] - 0s 381ms/step
 4587it [34:34, 1.95it/s]
 1/1 [=====] - 0s 334ms/step
 4588it [34:35, 1.92it/s]
 1/1 [=====] - 0s 333ms/step
 4589it [34:35, 1.96it/s]
 1/1 [=====] - 0s 365ms/step
 4590it [34:36, 1.95it/s]
 1/1 [=====] - 0s 344ms/step
 4591it [34:36, 1.96it/s]
 1/1 [=====] - 0s 369ms/step
 4592it [34:37, 1.88it/s]
 1/1 [=====] - 0s 365ms/step
 4593it [34:38, 1.93it/s]
 1/1 [=====] - 0s 304ms/step

4594it [34:38, 2.01it/s]
 1/1 [=====] - 0s 325ms/step
 4595it [34:38, 2.08it/s]
 1/1 [=====] - 0s 352ms/step
 4596it [34:39, 2.06it/s]
 1/1 [=====] - 0s 336ms/step
 4597it [34:39, 2.10it/s]
 1/1 [=====] - 0s 365ms/step
 4598it [34:40, 2.05it/s]
 1/1 [=====] - 0s 389ms/step
 4599it [34:40, 1.98it/s]
 1/1 [=====] - 0s 359ms/step
 4600it [34:41, 1.95it/s]
 1/1 [=====] - 0s 312ms/step
 4601it [34:41, 1.98it/s]
 1/1 [=====] - 0s 354ms/step
 4602it [34:42, 1.98it/s]
 1/1 [=====] - 0s 447ms/step
 4603it [34:43, 1.86it/s]
 1/1 [=====] - 0s 359ms/step
 4604it [34:43, 1.89it/s]
 1/1 [=====] - 0s 328ms/step
 4605it [34:44, 1.93it/s]
 1/1 [=====] - 0s 407ms/step
 4606it [34:44, 1.84it/s]
 1/1 [=====] - 0s 400ms/step
 4607it [34:45, 1.85it/s]
 1/1 [=====] - 0s 324ms/step
 4608it [34:45, 1.95it/s]
 1/1 [=====] - 0s 343ms/step
 4609it [34:46, 2.00it/s]
 1/1 [=====] - 0s 349ms/step

4610it [34:46, 1.99it/s]
 1/1 [=====] - 0s 369ms/step
 4611it [34:47, 1.93it/s]
 1/1 [=====] - 0s 332ms/step
 4612it [34:47, 1.96it/s]
 1/1 [=====] - 0s 406ms/step
 4613it [34:48, 1.93it/s]
 1/1 [=====] - 0s 345ms/step
 4614it [34:48, 1.99it/s]
 1/1 [=====] - 0s 293ms/step
 4615it [34:49, 2.11it/s]
 1/1 [=====] - 0s 428ms/step
 4616it [34:49, 2.04it/s]
 1/1 [=====] - 0s 354ms/step
 4617it [34:50, 2.03it/s]
 1/1 [=====] - 0s 336ms/step
 4618it [34:50, 2.01it/s]
 1/1 [=====] - 0s 360ms/step
 4619it [34:51, 1.99it/s]
 1/1 [=====] - 0s 350ms/step
 4620it [34:51, 1.97it/s]
 1/1 [=====] - 0s 334ms/step
 4621it [34:52, 1.99it/s]
 1/1 [=====] - 0s 349ms/step
 4622it [34:52, 1.96it/s]
 1/1 [=====] - 0s 368ms/step
 4623it [34:53, 1.90it/s]
 1/1 [=====] - 0s 347ms/step
 4624it [34:53, 1.87it/s]
 1/1 [=====] - 0s 372ms/step
 4625it [34:54, 1.87it/s]
 1/1 [=====] - 0s 318ms/step

4626it [34:54, 1.95it/s]
 1/1 [=====] - 0s 352ms/step
 4627it [34:55, 1.96it/s]
 1/1 [=====] - 0s 341ms/step
 4628it [34:55, 2.01it/s]
 1/1 [=====] - 0s 423ms/step
 4629it [34:56, 1.96it/s]
 1/1 [=====] - 0s 312ms/step
 4630it [34:56, 1.98it/s]
 1/1 [=====] - 0s 395ms/step
 4631it [34:57, 1.93it/s]
 1/1 [=====] - 0s 416ms/step
 4632it [34:57, 1.87it/s]
 1/1 [=====] - 0s 341ms/step
 4633it [34:58, 1.95it/s]
 1/1 [=====] - 0s 296ms/step
 4634it [34:58, 2.06it/s]
 1/1 [=====] - 0s 380ms/step
 4635it [34:59, 2.04it/s]
 1/1 [=====] - 0s 420ms/step
 4636it [34:59, 1.96it/s]
 1/1 [=====] - 0s 366ms/step
 4637it [35:00, 1.94it/s]
 1/1 [=====] - 0s 329ms/step
 4638it [35:00, 1.98it/s]
 1/1 [=====] - 0s 337ms/step
 4639it [35:01, 2.00it/s]
 1/1 [=====] - 0s 435ms/step
 4640it [35:01, 1.90it/s]
 1/1 [=====] - 0s 445ms/step
 4641it [35:02, 1.81it/s]
 1/1 [=====] - 0s 324ms/step

4642it [35:03, 1.85it/s]
 1/1 [=====] - 0s 353ms/step
 4643it [35:03, 1.89it/s]
 1/1 [=====] - 0s 363ms/step
 4644it [35:04, 1.91it/s]
 1/1 [=====] - 0s 349ms/step
 4645it [35:04, 1.93it/s]
 1/1 [=====] - 0s 337ms/step
 4646it [35:05, 1.95it/s]
 1/1 [=====] - 0s 363ms/step
 4647it [35:05, 1.94it/s]
 1/1 [=====] - 0s 375ms/step
 4648it [35:06, 1.93it/s]
 1/1 [=====] - 0s 360ms/step
 4649it [35:06, 1.93it/s]
 1/1 [=====] - 0s 311ms/step
 4650it [35:07, 1.99it/s]
 1/1 [=====] - 0s 353ms/step
 4651it [35:07, 2.03it/s]
 1/1 [=====] - 0s 321ms/step
 4652it [35:08, 2.09it/s]
 1/1 [=====] - 0s 345ms/step
 4653it [35:08, 2.11it/s]
 1/1 [=====] - 0s 404ms/step
 4654it [35:09, 2.02it/s]
 1/1 [=====] - 0s 368ms/step
 4655it [35:09, 2.05it/s]
 1/1 [=====] - 0s 305ms/step
 4656it [35:09, 2.07it/s]
 1/1 [=====] - 0s 387ms/step
 4657it [35:10, 2.00it/s]
 1/1 [=====] - 0s 339ms/step

4658it [35:11, 2.00it/s]
 1/1 [=====] - 0s 413ms/step
 4659it [35:11, 1.92it/s]
 1/1 [=====] - 0s 347ms/step
 4660it [35:12, 1.93it/s]
 1/1 [=====] - 0s 358ms/step
 4661it [35:12, 1.95it/s]
 1/1 [=====] - 0s 351ms/step
 4662it [35:13, 1.96it/s]
 1/1 [=====] - 0s 339ms/step
 4663it [35:13, 1.92it/s]
 1/1 [=====] - 0s 349ms/step
 4664it [35:14, 1.92it/s]
 1/1 [=====] - 0s 330ms/step
 4665it [35:14, 1.96it/s]
 1/1 [=====] - 0s 385ms/step
 4666it [35:15, 1.85it/s]
 1/1 [=====] - 0s 343ms/step
 4667it [35:15, 1.91it/s]
 1/1 [=====] - 0s 366ms/step
 4668it [35:16, 1.94it/s]
 1/1 [=====] - 0s 325ms/step
 4669it [35:16, 2.01it/s]
 1/1 [=====] - 0s 341ms/step
 4670it [35:17, 2.06it/s]
 1/1 [=====] - 0s 406ms/step
 4671it [35:17, 2.01it/s]
 1/1 [=====] - 0s 364ms/step
 4672it [35:18, 2.04it/s]
 1/1 [=====] - 0s 354ms/step
 4673it [35:18, 2.08it/s]
 1/1 [=====] - 0s 357ms/step

4674it [35:19, 2.08it/s]
 1/1 [=====] - 0s 341ms/step
 4675it [35:19, 2.11it/s]
 1/1 [=====] - 0s 344ms/step
 4676it [35:20, 2.06it/s]
 1/1 [=====] - 0s 359ms/step
 4677it [35:20, 2.02it/s]
 1/1 [=====] - 0s 341ms/step
 4678it [35:21, 1.93it/s]
 1/1 [=====] - 0s 338ms/step
 4679it [35:21, 1.96it/s]
 1/1 [=====] - 0s 332ms/step
 4680it [35:22, 1.98it/s]
 1/1 [=====] - 0s 338ms/step
 4681it [35:22, 1.96it/s]
 1/1 [=====] - 0s 356ms/step
 4682it [35:23, 1.96it/s]
 1/1 [=====] - 0s 420ms/step
 4683it [35:23, 1.89it/s]
 1/1 [=====] - 0s 374ms/step
 4684it [35:24, 1.89it/s]
 1/1 [=====] - 0s 325ms/step
 4685it [35:24, 1.95it/s]
 1/1 [=====] - 0s 343ms/step
 4686it [35:25, 1.98it/s]
 1/1 [=====] - 0s 400ms/step
 4687it [35:25, 1.90it/s]
 1/1 [=====] - 0s 342ms/step
 4688it [35:26, 1.93it/s]
 1/1 [=====] - 0s 421ms/step
 4689it [35:26, 1.85it/s]
 1/1 [=====] - 0s 300ms/step

4690it [35:27, 1.96it/s]
 1/1 [=====] - 0s 332ms/step
 4691it [35:27, 2.03it/s]
 1/1 [=====] - 0s 313ms/step
 4692it [35:28, 2.12it/s]
 1/1 [=====] - 0s 417ms/step
 4693it [35:28, 2.03it/s]
 1/1 [=====] - 0s 366ms/step
 4694it [35:29, 1.99it/s]
 1/1 [=====] - 0s 463ms/step
 4695it [35:29, 1.85it/s]
 1/1 [=====] - 0s 357ms/step
 4696it [35:30, 1.88it/s]
 1/1 [=====] - 0s 342ms/step
 4697it [35:30, 1.92it/s]
 1/1 [=====] - 0s 347ms/step
 4698it [35:31, 1.93it/s]
 1/1 [=====] - 0s 383ms/step
 4699it [35:31, 1.91it/s]
 1/1 [=====] - 0s 343ms/step
 4700it [35:32, 1.93it/s]
 1/1 [=====] - 0s 336ms/step
 4701it [35:32, 1.95it/s]
 1/1 [=====] - 0s 398ms/step
 4702it [35:33, 1.86it/s]
 1/1 [=====] - 0s 363ms/step
 4703it [35:34, 1.89it/s]
 1/1 [=====] - 0s 339ms/step
 4704it [35:34, 1.91it/s]
 1/1 [=====] - 0s 383ms/step
 4705it [35:35, 1.89it/s]
 1/1 [=====] - 0s 363ms/step

4706it [35:35, 1.89it/s]
 1/1 [=====] - 0s 310ms/step
 4707it [35:36, 1.99it/s]
 1/1 [=====] - 0s 479ms/step
 4708it [35:36, 1.88it/s]
 1/1 [=====] - 0s 324ms/step
 4709it [35:37, 1.85it/s]
 1/1 [=====] - 0s 325ms/step
 4710it [35:37, 1.92it/s]
 1/1 [=====] - 0s 358ms/step
 4711it [35:38, 1.93it/s]
 1/1 [=====] - 0s 358ms/step
 4712it [35:38, 1.92it/s]
 1/1 [=====] - 0s 325ms/step
 4713it [35:39, 1.97it/s]
 1/1 [=====] - 0s 326ms/step
 4714it [35:39, 1.93it/s]
 1/1 [=====] - 0s 386ms/step
 4715it [35:40, 1.91it/s]
 1/1 [=====] - 0s 343ms/step
 4716it [35:40, 1.94it/s]
 1/1 [=====] - 0s 365ms/step
 4717it [35:41, 1.93it/s]
 1/1 [=====] - 0s 307ms/step
 4718it [35:41, 1.99it/s]
 1/1 [=====] - 0s 341ms/step
 4719it [35:42, 2.00it/s]
 1/1 [=====] - 0s 352ms/step
 4720it [35:42, 1.98it/s]
 1/1 [=====] - 0s 355ms/step
 4721it [35:43, 1.95it/s]
 1/1 [=====] - 0s 415ms/step

4722it [35:43, 1.89it/s]
 1/1 [=====] - 0s 315ms/step
 4723it [35:44, 2.01it/s]
 1/1 [=====] - 0s 392ms/step
 4724it [35:44, 1.97it/s]
 1/1 [=====] - 0s 387ms/step
 4725it [35:45, 1.97it/s]
 1/1 [=====] - 0s 340ms/step
 4726it [35:45, 1.98it/s]
 1/1 [=====] - 0s 318ms/step
 4727it [35:46, 2.02it/s]
 1/1 [=====] - 0s 352ms/step
 4728it [35:46, 2.00it/s]
 1/1 [=====] - 0s 364ms/step
 4729it [35:47, 1.96it/s]
 1/1 [=====] - 0s 384ms/step
 4730it [35:47, 1.91it/s]
 1/1 [=====] - 0s 309ms/step
 4731it [35:48, 1.98it/s]
 1/1 [=====] - 0s 334ms/step
 4732it [35:48, 2.02it/s]
 1/1 [=====] - 0s 379ms/step
 4733it [35:49, 1.98it/s]
 1/1 [=====] - 0s 398ms/step
 4734it [35:49, 1.91it/s]
 1/1 [=====] - 0s 319ms/step
 4735it [35:50, 1.91it/s]
 1/1 [=====] - 0s 322ms/step
 4736it [35:50, 1.96it/s]
 1/1 [=====] - 0s 324ms/step
 4737it [35:51, 2.03it/s]
 1/1 [=====] - 0s 378ms/step

4738it [35:51, 1.99it/s]
 1/1 [=====] - 0s 382ms/step
 4739it [35:52, 1.93it/s]
 1/1 [=====] - 0s 311ms/step
 4740it [35:53, 1.92it/s]
 1/1 [=====] - 0s 321ms/step
 4741it [35:53, 1.96it/s]
 1/1 [=====] - 0s 360ms/step
 4742it [35:54, 1.95it/s]
 1/1 [=====] - 0s 413ms/step
 4743it [35:54, 1.91it/s]
 1/1 [=====] - 0s 348ms/step
 4744it [35:55, 1.93it/s]
 1/1 [=====] - 0s 337ms/step
 4745it [35:55, 1.95it/s]
 1/1 [=====] - 0s 318ms/step
 4746it [35:56, 2.01it/s]
 1/1 [=====] - 0s 382ms/step
 4747it [35:56, 1.96it/s]
 1/1 [=====] - 0s 338ms/step
 4748it [35:57, 1.99it/s]
 1/1 [=====] - 0s 403ms/step
 4749it [35:57, 1.87it/s]
 1/1 [=====] - 0s 373ms/step
 4750it [35:58, 1.84it/s]
 1/1 [=====] - 0s 318ms/step
 4751it [35:58, 1.92it/s]
 1/1 [=====] - 0s 325ms/step
 4752it [35:59, 2.01it/s]
 1/1 [=====] - 0s 329ms/step
 4753it [35:59, 2.09it/s]
 1/1 [=====] - 0s 443ms/step

4754it [36:00, 1.92it/s]
 1/1 [=====] - 0s 407ms/step
 4755it [36:00, 1.88it/s]
 1/1 [=====] - 0s 332ms/step
 4756it [36:01, 1.94it/s]
 1/1 [=====] - 0s 350ms/step
 4757it [36:01, 1.96it/s]
 1/1 [=====] - 0s 363ms/step
 4758it [36:02, 1.95it/s]
 1/1 [=====] - 0s 347ms/step
 4759it [36:02, 1.93it/s]
 1/1 [=====] - 0s 382ms/step
 4760it [36:03, 1.91it/s]
 1/1 [=====] - 0s 325ms/step
 4761it [36:03, 1.96it/s]
 1/1 [=====] - 0s 355ms/step
 4762it [36:04, 1.98it/s]
 1/1 [=====] - 0s 330ms/step
 4763it [36:04, 2.05it/s]
 1/1 [=====] - 0s 331ms/step
 4764it [36:05, 2.02it/s]
 1/1 [=====] - 0s 385ms/step
 4765it [36:05, 1.99it/s]
 1/1 [=====] - 0s 309ms/step
 4766it [36:06, 2.11it/s]
 1/1 [=====] - 0s 381ms/step
 4767it [36:06, 2.03it/s]
 1/1 [=====] - 0s 339ms/step
 4768it [36:07, 2.03it/s]
 1/1 [=====] - 0s 347ms/step
 4769it [36:07, 2.03it/s]
 1/1 [=====] - 0s 416ms/step

4770it [36:08, 1.91it/s]
 1/1 [=====] - 0s 316ms/step
 4771it [36:08, 1.97it/s]
 1/1 [=====] - 0s 326ms/step
 4772it [36:09, 2.00it/s]
 1/1 [=====] - 0s 339ms/step
 4773it [36:09, 1.99it/s]
 1/1 [=====] - 0s 403ms/step
 4774it [36:10, 1.88it/s]
 1/1 [=====] - 0s 399ms/step
 4775it [36:10, 1.84it/s]
 1/1 [=====] - 0s 326ms/step
 4776it [36:11, 1.90it/s]
 1/1 [=====] - 0s 327ms/step
 4777it [36:11, 1.96it/s]
 1/1 [=====] - 0s 414ms/step
 4778it [36:12, 1.91it/s]
 1/1 [=====] - 0s 375ms/step
 4779it [36:12, 1.94it/s]
 1/1 [=====] - 0s 349ms/step
 4780it [36:13, 2.01it/s]
 1/1 [=====] - 0s 322ms/step
 4781it [36:13, 2.04it/s]
 1/1 [=====] - 0s 348ms/step
 4782it [36:14, 2.09it/s]
 1/1 [=====] - 0s 345ms/step
 4783it [36:14, 2.04it/s]
 1/1 [=====] - 0s 363ms/step
 4784it [36:15, 1.94it/s]
 1/1 [=====] - 0s 325ms/step
 4785it [36:15, 1.96it/s]
 1/1 [=====] - 0s 344ms/step

4786it [36:16, 1.95it/s]
 1/1 [=====] - 0s 333ms/step
 4787it [36:16, 1.96it/s]
 1/1 [=====] - 0s 359ms/step
 4788it [36:17, 1.89it/s]
 1/1 [=====] - 0s 372ms/step
 4789it [36:18, 1.88it/s]
 1/1 [=====] - 0s 344ms/step
 4790it [36:18, 1.92it/s]
 1/1 [=====] - 0s 387ms/step
 4791it [36:19, 1.90it/s]
 1/1 [=====] - 0s 347ms/step
 4792it [36:19, 1.92it/s]
 1/1 [=====] - 0s 349ms/step
 4793it [36:20, 1.93it/s]
 1/1 [=====] - 0s 339ms/step
 4794it [36:20, 1.96it/s]
 1/1 [=====] - 0s 389ms/step
 4795it [36:21, 1.97it/s]
 1/1 [=====] - 0s 344ms/step
 4796it [36:21, 1.99it/s]
 1/1 [=====] - 0s 296ms/step
 4797it [36:22, 2.10it/s]
 1/1 [=====] - 0s 347ms/step
 4798it [36:22, 2.07it/s]
 1/1 [=====] - 0s 422ms/step
 4799it [36:23, 1.94it/s]
 1/1 [=====] - 0s 362ms/step
 4800it [36:23, 1.92it/s]
 1/1 [=====] - 0s 353ms/step
 4801it [36:24, 1.94it/s]
 1/1 [=====] - 0s 477ms/step

4802it [36:24, 1.79it/s]
 1/1 [=====] - 0s 405ms/step
 4803it [36:25, 1.76it/s]
 1/1 [=====] - 0s 388ms/step
 4804it [36:25, 1.77it/s]
 1/1 [=====] - 0s 341ms/step
 4805it [36:26, 1.84it/s]
 1/1 [=====] - 0s 350ms/step
 4806it [36:26, 1.88it/s]
 1/1 [=====] - 0s 356ms/step
 4807it [36:27, 1.88it/s]
 1/1 [=====] - 0s 396ms/step
 4808it [36:28, 1.83it/s]
 1/1 [=====] - 0s 323ms/step
 4809it [36:28, 1.90it/s]
 1/1 [=====] - 0s 329ms/step
 4810it [36:29, 1.98it/s]
 1/1 [=====] - 0s 366ms/step
 4811it [36:29, 2.00it/s]
 1/1 [=====] - 0s 346ms/step
 4812it [36:29, 2.03it/s]
 1/1 [=====] - 0s 304ms/step
 4813it [36:30, 2.06it/s]
 1/1 [=====] - 0s 348ms/step
 4814it [36:30, 2.10it/s]
 1/1 [=====] - 0s 314ms/step
 4815it [36:31, 2.11it/s]
 1/1 [=====] - 0s 408ms/step
 4816it [36:31, 1.99it/s]
 1/1 [=====] - 0s 348ms/step
 4817it [36:32, 1.98it/s]
 1/1 [=====] - 0s 349ms/step

4818it [36:32, 1.98it/s]
 1/1 [=====] - 0s 369ms/step
 4819it [36:33, 1.96it/s]
 1/1 [=====] - 0s 334ms/step
 4820it [36:33, 1.97it/s]
 1/1 [=====] - 0s 330ms/step
 4821it [36:34, 2.06it/s]
 1/1 [=====] - 0s 323ms/step
 4822it [36:34, 2.03it/s]
 1/1 [=====] - 0s 305ms/step
 4823it [36:35, 2.12it/s]
 1/1 [=====] - 0s 318ms/step
 4824it [36:35, 2.18it/s]
 1/1 [=====] - 0s 423ms/step
 4825it [36:36, 2.06it/s]
 1/1 [=====] - 0s 333ms/step
 4826it [36:36, 2.08it/s]
 1/1 [=====] - 0s 336ms/step
 4827it [36:37, 2.07it/s]
 1/1 [=====] - 0s 341ms/step
 4828it [36:37, 2.06it/s]
 1/1 [=====] - 0s 416ms/step
 4829it [36:38, 1.96it/s]
 1/1 [=====] - 0s 386ms/step
 4830it [36:38, 1.93it/s]
 1/1 [=====] - 0s 362ms/step
 4831it [36:39, 1.91it/s]
 1/1 [=====] - 0s 322ms/step
 4832it [36:39, 1.97it/s]
 1/1 [=====] - 0s 343ms/step
 4833it [36:40, 1.98it/s]
 1/1 [=====] - 0s 383ms/step

4834it [36:40, 1.94it/s]
 1/1 [=====] - 0s 362ms/step
 4835it [36:41, 1.97it/s]
 1/1 [=====] - 0s 309ms/step
 4836it [36:41, 2.07it/s]
 1/1 [=====] - 0s 327ms/step
 4837it [36:42, 2.12it/s]
 1/1 [=====] - 0s 399ms/step
 4838it [36:42, 2.06it/s]
 1/1 [=====] - 0s 340ms/step
 4839it [36:43, 2.05it/s]
 1/1 [=====] - 0s 346ms/step
 4840it [36:43, 2.03it/s]
 1/1 [=====] - 0s 399ms/step
 4841it [36:44, 1.97it/s]
 1/1 [=====] - 0s 351ms/step
 4842it [36:44, 1.97it/s]
 1/1 [=====] - 0s 313ms/step
 4843it [36:45, 2.02it/s]
 1/1 [=====] - 0s 372ms/step
 4844it [36:45, 1.98it/s]
 1/1 [=====] - 0s 404ms/step
 4845it [36:46, 1.91it/s]
 1/1 [=====] - 0s 351ms/step
 4846it [36:46, 1.89it/s]
 1/1 [=====] - 0s 334ms/step
 4847it [36:47, 1.94it/s]
 1/1 [=====] - 0s 346ms/step
 4848it [36:47, 1.94it/s]
 1/1 [=====] - 0s 412ms/step
 4849it [36:48, 1.88it/s]
 1/1 [=====] - 0s 407ms/step

4850it [36:49, 1.84it/s]
 1/1 [=====] - 0s 363ms/step
 4851it [36:49, 1.86it/s]
 1/1 [=====] - 0s 348ms/step
 4852it [36:50, 1.95it/s]
 1/1 [=====] - 0s 312ms/step
 4853it [36:50, 2.04it/s]
 1/1 [=====] - 0s 391ms/step
 4854it [36:51, 2.01it/s]
 1/1 [=====] - 0s 327ms/step
 4855it [36:51, 2.09it/s]
 1/1 [=====] - 0s 393ms/step
 4856it [36:51, 2.03it/s]
 1/1 [=====] - 0s 312ms/step
 4857it [36:52, 2.06it/s]
 1/1 [=====] - 0s 350ms/step
 4858it [36:53, 1.98it/s]
 1/1 [=====] - 0s 391ms/step
 4859it [36:53, 1.92it/s]
 1/1 [=====] - 0s 344ms/step
 4860it [36:54, 1.94it/s]
 1/1 [=====] - 0s 342ms/step
 4861it [36:54, 1.95it/s]
 1/1 [=====] - 0s 408ms/step
 4862it [36:55, 1.89it/s]
 1/1 [=====] - 0s 373ms/step
 4863it [36:55, 1.88it/s]
 1/1 [=====] - 0s 350ms/step
 4864it [36:56, 1.89it/s]
 1/1 [=====] - 0s 346ms/step
 4865it [36:56, 1.92it/s]
 1/1 [=====] - 0s 343ms/step

4866it [36:57, 1.88it/s]
 1/1 [=====] - 0s 369ms/step
 4867it [36:57, 1.88it/s]
 1/1 [=====] - 0s 428ms/step
 4868it [36:58, 1.86it/s]
 1/1 [=====] - 0s 358ms/step
 4869it [36:58, 1.93it/s]
 1/1 [=====] - 0s 319ms/step
 4870it [36:59, 1.97it/s]
 1/1 [=====] - 0s 357ms/step
 4871it [36:59, 1.96it/s]
 1/1 [=====] - 0s 334ms/step
 4872it [37:00, 2.04it/s]
 1/1 [=====] - 0s 405ms/step
 4873it [37:00, 1.99it/s]
 1/1 [=====] - 0s 338ms/step
 4874it [37:01, 2.00it/s]
 1/1 [=====] - 0s 331ms/step
 4875it [37:01, 2.01it/s]
 1/1 [=====] - 0s 335ms/step
 4876it [37:02, 2.00it/s]
 1/1 [=====] - 0s 421ms/step
 4877it [37:02, 1.92it/s]
 1/1 [=====] - 0s 354ms/step
 4878it [37:03, 1.92it/s]
 1/1 [=====] - 0s 369ms/step
 4879it [37:03, 1.92it/s]
 1/1 [=====] - 0s 316ms/step
 4880it [37:04, 1.98it/s]
 1/1 [=====] - 0s 406ms/step
 4881it [37:04, 1.91it/s]
 1/1 [=====] - 0s 412ms/step

4882it [37:05, 1.83it/s]
 1/1 [=====] - 0s 357ms/step
 4883it [37:06, 1.86it/s]
 1/1 [=====] - 0s 338ms/step
 4884it [37:06, 1.91it/s]
 1/1 [=====] - 0s 347ms/step
 4885it [37:07, 1.91it/s]
 1/1 [=====] - 0s 358ms/step
 4886it [37:07, 1.95it/s]
 1/1 [=====] - 0s 334ms/step
 4887it [37:08, 2.00it/s]
 1/1 [=====] - 0s 395ms/step
 4888it [37:08, 1.96it/s]
 1/1 [=====] - 0s 397ms/step
 4889it [37:09, 1.96it/s]
 1/1 [=====] - 0s 354ms/step
 4890it [37:09, 1.95it/s]
 1/1 [=====] - 0s 308ms/step
 4891it [37:10, 2.01it/s]
 1/1 [=====] - 0s 365ms/step
 4892it [37:10, 1.99it/s]
 1/1 [=====] - 0s 395ms/step
 4893it [37:11, 1.89it/s]
 1/1 [=====] - 0s 364ms/step
 4894it [37:11, 1.86it/s]
 1/1 [=====] - 0s 325ms/step
 4895it [37:12, 1.93it/s]
 1/1 [=====] - 0s 349ms/step
 4896it [37:12, 1.95it/s]
 1/1 [=====] - 0s 384ms/step
 4897it [37:13, 1.91it/s]
 1/1 [=====] - 0s 353ms/step

4898it [37:13, 1.93it/s]
 1/1 [=====] - 0s 315ms/step
 4899it [37:14, 1.99it/s]
 1/1 [=====] - 0s 348ms/step
 4900it [37:14, 1.99it/s]
 1/1 [=====] - 0s 361ms/step
 4901it [37:15, 1.98it/s]
 1/1 [=====] - 0s 378ms/step
 4902it [37:15, 1.97it/s]
 1/1 [=====] - 0s 344ms/step
 4903it [37:16, 1.97it/s]
 1/1 [=====] - 0s 372ms/step
 4904it [37:16, 2.00it/s]
 1/1 [=====] - 0s 329ms/step
 4905it [37:17, 2.05it/s]
 1/1 [=====] - 0s 349ms/step
 4906it [37:17, 2.02it/s]
 1/1 [=====] - 0s 328ms/step
 4907it [37:18, 2.02it/s]
 1/1 [=====] - 0s 350ms/step
 4908it [37:18, 2.01it/s]
 1/1 [=====] - 0s 336ms/step
 4909it [37:19, 2.01it/s]
 1/1 [=====] - 0s 393ms/step
 4910it [37:19, 1.95it/s]
 1/1 [=====] - 0s 328ms/step
 4911it [37:20, 1.98it/s]
 1/1 [=====] - 0s 429ms/step
 4912it [37:20, 1.89it/s]
 1/1 [=====] - 0s 379ms/step
 4913it [37:21, 1.87it/s]
 1/1 [=====] - 0s 371ms/step

4914it [37:21, 1.87it/s]
 1/1 [=====] - 0s 311ms/step
 4915it [37:22, 1.95it/s]
 1/1 [=====] - 0s 410ms/step
 4916it [37:22, 1.90it/s]
 1/1 [=====] - 0s 343ms/step
 4917it [37:23, 1.94it/s]
 1/1 [=====] - 0s 410ms/step
 4918it [37:23, 1.85it/s]
 1/1 [=====] - 0s 313ms/step
 4919it [37:24, 1.92it/s]
 1/1 [=====] - 0s 356ms/step
 4920it [37:24, 1.94it/s]
 1/1 [=====] - 0s 374ms/step
 4921it [37:25, 1.89it/s]
 1/1 [=====] - 0s 350ms/step
 4922it [37:26, 1.94it/s]
 1/1 [=====] - 0s 305ms/step
 4923it [37:26, 2.05it/s]
 1/1 [=====] - 0s 328ms/step
 4924it [37:26, 2.10it/s]
 1/1 [=====] - 0s 329ms/step
 4925it [37:27, 2.10it/s]
 1/1 [=====] - 0s 412ms/step
 4926it [37:27, 2.04it/s]
 1/1 [=====] - 0s 307ms/step
 4927it [37:28, 2.12it/s]
 1/1 [=====] - 0s 369ms/step
 4928it [37:28, 2.10it/s]
 1/1 [=====] - 0s 393ms/step
 4929it [37:29, 1.98it/s]
 1/1 [=====] - 0s 350ms/step

4930it [37:29, 1.98it/s]
 1/1 [=====] - 0s 321ms/step
 4931it [37:30, 2.08it/s]
 1/1 [=====] - 0s 328ms/step
 4932it [37:30, 2.05it/s]
 1/1 [=====] - 0s 318ms/step
 4933it [37:31, 2.09it/s]
 1/1 [=====] - 0s 328ms/step
 4934it [37:31, 2.13it/s]
 1/1 [=====] - 0s 323ms/step
 4935it [37:32, 2.14it/s]
 1/1 [=====] - 0s 337ms/step
 4936it [37:32, 2.08it/s]
 1/1 [=====] - 0s 357ms/step
 4937it [37:33, 2.03it/s]
 1/1 [=====] - 0s 401ms/step
 4938it [37:33, 1.93it/s]
 1/1 [=====] - 0s 353ms/step
 4939it [37:34, 1.94it/s]
 1/1 [=====] - 0s 357ms/step
 4940it [37:34, 1.94it/s]
 1/1 [=====] - 0s 354ms/step
 4941it [37:35, 1.91it/s]
 1/1 [=====] - 0s 361ms/step
 4942it [37:35, 1.87it/s]
 1/1 [=====] - 0s 313ms/step
 4943it [37:36, 1.95it/s]
 1/1 [=====] - 0s 346ms/step
 4944it [37:36, 1.95it/s]
 1/1 [=====] - 0s 355ms/step
 4945it [37:37, 1.91it/s]
 1/1 [=====] - 0s 416ms/step

4946it [37:38, 1.84it/s]
 1/1 [=====] - 0s 331ms/step
 4947it [37:38, 1.90it/s]
 1/1 [=====] - 0s 349ms/step
 4948it [37:39, 1.92it/s]
 1/1 [=====] - 0s 334ms/step
 4949it [37:39, 2.00it/s]
 1/1 [=====] - 0s 340ms/step
 4950it [37:39, 2.04it/s]
 1/1 [=====] - 0s 328ms/step
 4951it [37:40, 2.08it/s]
 1/1 [=====] - 0s 336ms/step
 4952it [37:40, 2.10it/s]
 1/1 [=====] - 0s 336ms/step
 4953it [37:41, 2.12it/s]
 1/1 [=====] - 0s 335ms/step
 4954it [37:41, 2.05it/s]
 1/1 [=====] - 0s 325ms/step
 4955it [37:42, 2.03it/s]
 1/1 [=====] - 0s 329ms/step
 4956it [37:42, 2.04it/s]
 1/1 [=====] - 0s 427ms/step
 4957it [37:43, 1.92it/s]
 1/1 [=====] - 0s 352ms/step
 4958it [37:43, 1.94it/s]
 1/1 [=====] - 0s 374ms/step
 4959it [37:44, 1.92it/s]
 1/1 [=====] - 0s 311ms/step
 4960it [37:44, 1.94it/s]
 1/1 [=====] - 0s 366ms/step
 4961it [37:45, 1.94it/s]
 1/1 [=====] - 0s 413ms/step

4962it [37:46, 1.88it/s]
 1/1 [=====] - 0s 401ms/step
 4963it [37:46, 1.85it/s]
 1/1 [=====] - 0s 280ms/step
 4964it [37:47, 1.98it/s]
 1/1 [=====] - 0s 350ms/step
 4965it [37:47, 2.04it/s]
 1/1 [=====] - 0s 406ms/step
 4966it [37:48, 1.97it/s]
 1/1 [=====] - 0s 326ms/step
 4967it [37:48, 2.06it/s]
 1/1 [=====] - 0s 313ms/step
 4968it [37:48, 2.15it/s]
 1/1 [=====] - 0s 376ms/step
 4969it [37:49, 2.10it/s]
 1/1 [=====] - 0s 330ms/step
 4970it [37:49, 2.12it/s]
 1/1 [=====] - 0s 341ms/step
 4971it [37:50, 2.08it/s]
 1/1 [=====] - 0s 346ms/step
 4972it [37:50, 2.05it/s]
 1/1 [=====] - 0s 419ms/step
 4973it [37:51, 1.94it/s]
 1/1 [=====] - 0s 350ms/step
 4974it [37:51, 1.95it/s]
 1/1 [=====] - 0s 323ms/step
 4975it [37:52, 2.03it/s]
 1/1 [=====] - 0s 347ms/step
 4976it [37:52, 2.09it/s]
 1/1 [=====] - 0s 335ms/step
 4977it [37:53, 2.14it/s]
 1/1 [=====] - 0s 341ms/step

4978it [37:53, 2.02it/s]
 1/1 [=====] - 0s 297ms/step
 4979it [37:54, 2.13it/s]
 1/1 [=====] - 0s 365ms/step
 4980it [37:54, 2.13it/s]
 1/1 [=====] - 0s 371ms/step
 4981it [37:55, 2.10it/s]
 1/1 [=====] - 0s 349ms/step
 4982it [37:55, 2.10it/s]
 1/1 [=====] - 0s 317ms/step
 4983it [37:56, 2.14it/s]
 1/1 [=====] - 0s 354ms/step
 4984it [37:56, 2.09it/s]
 1/1 [=====] - 0s 381ms/step
 4985it [37:57, 2.00it/s]
 1/1 [=====] - 0s 395ms/step
 4986it [37:57, 1.93it/s]
 1/1 [=====] - 0s 437ms/step
 4987it [37:58, 1.83it/s]
 1/1 [=====] - 0s 313ms/step
 4988it [37:58, 1.92it/s]
 1/1 [=====] - 0s 340ms/step
 4989it [37:59, 1.94it/s]
 1/1 [=====] - 0s 371ms/step
 4990it [37:59, 1.88it/s]
 1/1 [=====] - 0s 368ms/step
 4991it [38:00, 1.87it/s]
 1/1 [=====] - 0s 322ms/step
 4992it [38:00, 1.93it/s]
 1/1 [=====] - 0s 341ms/step
 4993it [38:01, 2.02it/s]
 1/1 [=====] - 0s 408ms/step

4994it [38:01, 1.99it/s]
 1/1 [=====] - 0s 369ms/step
 4995it [38:02, 1.94it/s]
 1/1 [=====] - 0s 319ms/step
 4996it [38:02, 1.99it/s]
 1/1 [=====] - 0s 359ms/step
 4997it [38:03, 1.98it/s]
 1/1 [=====] - 0s 346ms/step
 4998it [38:03, 1.98it/s]
 1/1 [=====] - 0s 344ms/step
 4999it [38:04, 1.97it/s]
 1/1 [=====] - 0s 334ms/step
 5000it [38:04, 1.98it/s]
 1/1 [=====] - 0s 316ms/step
 5001it [38:05, 2.08it/s]
 1/1 [=====] - 0s 353ms/step
 5002it [38:05, 1.99it/s]
 1/1 [=====] - 0s 336ms/step
 5003it [38:06, 2.05it/s]
 1/1 [=====] - 0s 323ms/step
 5004it [38:06, 2.09it/s]
 1/1 [=====] - 0s 372ms/step
 5005it [38:07, 2.09it/s]
 1/1 [=====] - 0s 346ms/step
 5006it [38:07, 2.12it/s]
 1/1 [=====] - 0s 417ms/step
 5007it [38:08, 2.00it/s]
 1/1 [=====] - 0s 357ms/step
 5008it [38:08, 1.99it/s]
 1/1 [=====] - 0s 331ms/step
 5009it [38:09, 1.98it/s]
 1/1 [=====] - 0s 342ms/step

5010it [38:09, 1.99it/s]
 1/1 [=====] - 0s 428ms/step
 5011it [38:10, 1.86it/s]
 1/1 [=====] - 0s 361ms/step
 5012it [38:10, 1.88it/s]
 1/1 [=====] - 0s 333ms/step
 5013it [38:11, 1.93it/s]
 1/1 [=====] - 0s 385ms/step
 5014it [38:12, 1.87it/s]
 1/1 [=====] - 0s 350ms/step
 5015it [38:12, 1.90it/s]
 1/1 [=====] - 0s 418ms/step
 5016it [38:13, 1.85it/s]
 1/1 [=====] - 0s 357ms/step
 5017it [38:13, 1.88it/s]
 1/1 [=====] - 0s 349ms/step
 5018it [38:14, 1.91it/s]
 1/1 [=====] - 0s 368ms/step
 5019it [38:14, 1.88it/s]
 1/1 [=====] - 0s 359ms/step
 5020it [38:15, 1.91it/s]
 1/1 [=====] - 0s 428ms/step
 5021it [38:15, 1.87it/s]
 1/1 [=====] - 0s 350ms/step
 5022it [38:16, 1.95it/s]
 1/1 [=====] - 0s 323ms/step
 5023it [38:16, 2.05it/s]
 1/1 [=====] - 0s 356ms/step
 5024it [38:17, 2.03it/s]
 1/1 [=====] - 0s 334ms/step
 5025it [38:17, 2.09it/s]
 1/1 [=====] - 0s 364ms/step

5026it [38:18, 1.99it/s]
 1/1 [=====] - 0s 359ms/step
 5027it [38:18, 1.93it/s]
 1/1 [=====] - 0s 373ms/step
 5028it [38:19, 1.93it/s]
 1/1 [=====] - 0s 357ms/step
 5029it [38:19, 1.95it/s]
 1/1 [=====] - 0s 373ms/step
 5030it [38:20, 1.92it/s]
 1/1 [=====] - 0s 361ms/step
 5031it [38:20, 1.91it/s]
 1/1 [=====] - 0s 338ms/step
 5032it [38:21, 1.95it/s]
 1/1 [=====] - 0s 356ms/step
 5033it [38:21, 1.94it/s]
 1/1 [=====] - 0s 388ms/step
 5034it [38:22, 1.92it/s]
 1/1 [=====] - 0s 359ms/step
 5035it [38:22, 1.91it/s]
 1/1 [=====] - 0s 322ms/step
 5036it [38:23, 1.95it/s]
 1/1 [=====] - 0s 353ms/step
 5037it [38:23, 1.97it/s]
 1/1 [=====] - 0s 330ms/step
 5038it [38:24, 2.00it/s]
 1/1 [=====] - 0s 372ms/step
 5039it [38:24, 2.01it/s]
 1/1 [=====] - 0s 317ms/step
 5040it [38:25, 2.09it/s]
 1/1 [=====] - 0s 352ms/step
 5041it [38:25, 2.04it/s]
 1/1 [=====] - 0s 358ms/step

5042it [38:26, 2.00it/s]
 1/1 [=====] - 0s 335ms/step
 5043it [38:26, 2.00it/s]
 1/1 [=====] - 0s 354ms/step
 5044it [38:27, 1.97it/s]
 1/1 [=====] - 0s 344ms/step
 5045it [38:27, 1.99it/s]
 1/1 [=====] - 0s 346ms/step
 5046it [38:28, 1.97it/s]
 1/1 [=====] - 0s 325ms/step
 5047it [38:28, 1.96it/s]
 1/1 [=====] - 0s 337ms/step
 5048it [38:29, 2.05it/s]
 1/1 [=====] - 0s 331ms/step
 5049it [38:29, 2.11it/s]
 1/1 [=====] - 0s 400ms/step
 5050it [38:30, 1.93it/s]
 1/1 [=====] - 0s 314ms/step
 5051it [38:30, 2.01it/s]
 1/1 [=====] - 0s 339ms/step
 5052it [38:31, 2.00it/s]
 1/1 [=====] - 0s 411ms/step
 5053it [38:31, 1.92it/s]
 1/1 [=====] - 0s 348ms/step
 5054it [38:32, 1.94it/s]
 1/1 [=====] - 0s 392ms/step
 5055it [38:32, 1.88it/s]
 1/1 [=====] - 0s 331ms/step
 5056it [38:33, 1.93it/s]
 1/1 [=====] - 0s 422ms/step
 5057it [38:34, 1.84it/s]
 1/1 [=====] - 0s 352ms/step

5058it [38:34, 1.88it/s]
 1/1 [=====] - 0s 353ms/step
 5059it [38:35, 1.86it/s]
 1/1 [=====] - 0s 435ms/step
 5060it [38:35, 1.80it/s]
 1/1 [=====] - 0s 326ms/step
 5061it [38:36, 1.90it/s]
 1/1 [=====] - 0s 332ms/step
 5062it [38:36, 1.94it/s]
 1/1 [=====] - 0s 417ms/step
 5063it [38:37, 1.87it/s]
 1/1 [=====] - 0s 302ms/step
 5064it [38:37, 1.99it/s]
 1/1 [=====] - 0s 358ms/step
 5065it [38:38, 1.98it/s]
 1/1 [=====] - 0s 413ms/step
 5066it [38:38, 1.91it/s]
 1/1 [=====] - 0s 409ms/step
 5067it [38:39, 1.85it/s]
 1/1 [=====] - 0s 350ms/step
 5068it [38:39, 1.88it/s]
 1/1 [=====] - 0s 346ms/step
 5069it [38:40, 1.90it/s]
 1/1 [=====] - 0s 416ms/step
 5070it [38:40, 1.85it/s]
 1/1 [=====] - 0s 378ms/step
 5071it [38:41, 1.85it/s]
 1/1 [=====] - 0s 360ms/step
 5072it [38:41, 1.86it/s]
 1/1 [=====] - 0s 340ms/step
 5073it [38:42, 1.85it/s]
 1/1 [=====] - 0s 349ms/step

5074it [38:43, 1.84it/s]
 1/1 [=====] - 0s 336ms/step
 5075it [38:43, 1.94it/s]
 1/1 [=====] - 0s 353ms/step
 5076it [38:44, 1.91it/s]
 1/1 [=====] - 0s 335ms/step
 5077it [38:44, 1.89it/s]
 1/1 [=====] - 0s 325ms/step
 5078it [38:45, 1.94it/s]
 1/1 [=====] - 0s 350ms/step
 5079it [38:45, 1.94it/s]
 1/1 [=====] - 0s 410ms/step
 5080it [38:46, 1.88it/s]
 1/1 [=====] - 0s 394ms/step
 5081it [38:46, 1.91it/s]
 1/1 [=====] - 0s 328ms/step
 5082it [38:47, 1.99it/s]
 1/1 [=====] - 0s 422ms/step
 5083it [38:47, 1.94it/s]
 1/1 [=====] - 0s 376ms/step
 5084it [38:48, 1.95it/s]
 1/1 [=====] - 0s 324ms/step
 5085it [38:48, 1.99it/s]
 1/1 [=====] - 0s 409ms/step
 5086it [38:49, 1.88it/s]
 1/1 [=====] - 0s 391ms/step
 5087it [38:49, 1.86it/s]
 1/1 [=====] - 0s 355ms/step
 5088it [38:50, 1.89it/s]
 1/1 [=====] - 0s 382ms/step
 5089it [38:50, 1.89it/s]
 1/1 [=====] - 0s 434ms/step

5090it [38:51, 1.83it/s]
 1/1 [=====] - 0s 338ms/step
 5091it [38:51, 1.88it/s]
 1/1 [=====] - 0s 342ms/step
 5092it [38:52, 1.91it/s]
 1/1 [=====] - 0s 414ms/step
 5093it [38:53, 1.85it/s]
 1/1 [=====] - 0s 314ms/step
 5094it [38:53, 1.99it/s]
 1/1 [=====] - 0s 472ms/step
 5095it [38:54, 1.84it/s]
 1/1 [=====] - 0s 321ms/step
 5096it [38:54, 1.91it/s]
 1/1 [=====] - 0s 418ms/step
 5097it [38:55, 1.87it/s]
 1/1 [=====] - 0s 350ms/step
 5098it [38:55, 1.87it/s]
 1/1 [=====] - 0s 353ms/step
 5099it [38:56, 1.87it/s]
 1/1 [=====] - 0s 320ms/step
 5100it [38:56, 1.96it/s]
 1/1 [=====] - 0s 330ms/step
 5101it [38:57, 2.05it/s]
 1/1 [=====] - 0s 374ms/step
 5102it [38:57, 1.97it/s]
 1/1 [=====] - 0s 357ms/step
 5103it [38:58, 2.00it/s]
 1/1 [=====] - 0s 323ms/step
 5104it [38:58, 2.01it/s]
 1/1 [=====] - 0s 384ms/step
 5105it [38:59, 1.95it/s]
 1/1 [=====] - 0s 409ms/step

5106it [38:59, 1.89it/s]
 1/1 [=====] - 0s 353ms/step
 5107it [39:00, 1.91it/s]
 1/1 [=====] - 0s 326ms/step
 5108it [39:00, 1.94it/s]
 1/1 [=====] - 0s 395ms/step
 5109it [39:01, 1.91it/s]
 1/1 [=====] - 0s 365ms/step
 5110it [39:01, 1.87it/s]
 1/1 [=====] - 0s 321ms/step
 5111it [39:02, 1.94it/s]
 1/1 [=====] - 0s 343ms/step
 5112it [39:02, 1.96it/s]
 1/1 [=====] - 0s 364ms/step
 5113it [39:03, 1.96it/s]
 1/1 [=====] - 0s 340ms/step
 5114it [39:03, 1.97it/s]
 1/1 [=====] - 0s 324ms/step
 5115it [39:04, 2.04it/s]
 1/1 [=====] - 0s 352ms/step
 5116it [39:04, 2.05it/s]
 1/1 [=====] - 0s 335ms/step
 5117it [39:05, 2.09it/s]
 1/1 [=====] - 0s 303ms/step
 5118it [39:05, 2.06it/s]
 1/1 [=====] - 0s 439ms/step
 5119it [39:06, 1.98it/s]
 1/1 [=====] - 0s 354ms/step
 5120it [39:06, 1.98it/s]
 1/1 [=====] - 0s 369ms/step
 5121it [39:07, 1.96it/s]
 1/1 [=====] - 0s 324ms/step

5122it [39:07, 1.89it/s]
 1/1 [=====] - 0s 361ms/step
 5123it [39:08, 1.90it/s]
 1/1 [=====] - 0s 346ms/step
 5124it [39:08, 1.93it/s]
 1/1 [=====] - 0s 425ms/step
 5125it [39:09, 1.87it/s]
 1/1 [=====] - 0s 346ms/step
 5126it [39:09, 1.86it/s]
 1/1 [=====] - 0s 318ms/step
 5127it [39:10, 1.93it/s]
 1/1 [=====] - 0s 394ms/step
 5128it [39:10, 1.90it/s]
 1/1 [=====] - 0s 328ms/step
 5129it [39:11, 1.95it/s]
 1/1 [=====] - 0s 362ms/step
 5130it [39:11, 1.94it/s]
 1/1 [=====] - 0s 402ms/step
 5131it [39:12, 1.90it/s]
 1/1 [=====] - 0s 301ms/step
 5132it [39:12, 2.02it/s]
 1/1 [=====] - 0s 319ms/step
 5133it [39:13, 2.10it/s]
 1/1 [=====] - 0s 404ms/step
 5134it [39:13, 2.01it/s]
 1/1 [=====] - 0s 349ms/step
 5135it [39:14, 2.04it/s]
 1/1 [=====] - 0s 344ms/step
 5136it [39:14, 2.02it/s]
 1/1 [=====] - 0s 337ms/step
 5137it [39:15, 2.03it/s]
 1/1 [=====] - 0s 350ms/step

5138it [39:15, 1.96it/s]
 1/1 [=====] - 0s 326ms/step
 5139it [39:16, 2.00it/s]
 1/1 [=====] - 0s 317ms/step
 5140it [39:16, 2.04it/s]
 1/1 [=====] - 0s 444ms/step
 5141it [39:17, 1.91it/s]
 1/1 [=====] - 0s 410ms/step
 5142it [39:18, 1.86it/s]
 1/1 [=====] - 0s 332ms/step
 5143it [39:18, 1.91it/s]
 1/1 [=====] - 0s 322ms/step
 5144it [39:19, 1.96it/s]
 1/1 [=====] - 0s 325ms/step
 5145it [39:19, 2.04it/s]
 1/1 [=====] - 0s 349ms/step
 5146it [39:19, 2.04it/s]
 1/1 [=====] - 0s 354ms/step
 5147it [39:20, 2.05it/s]
 1/1 [=====] - 0s 405ms/step
 5148it [39:20, 2.00it/s]
 1/1 [=====] - 0s 314ms/step
 5149it [39:21, 2.07it/s]
 1/1 [=====] - 0s 330ms/step
 5150it [39:21, 2.07it/s]
 1/1 [=====] - 0s 384ms/step
 5151it [39:22, 1.99it/s]
 1/1 [=====] - 0s 366ms/step
 5152it [39:22, 1.96it/s]
 1/1 [=====] - 0s 305ms/step
 5153it [39:23, 2.00it/s]
 1/1 [=====] - 0s 313ms/step

5154it [39:23, 2.10it/s]
 1/1 [=====] - 0s 335ms/step
 5155it [39:24, 2.15it/s]
 1/1 [=====] - 0s 339ms/step
 5156it [39:24, 2.17it/s]
 1/1 [=====] - 0s 370ms/step
 5157it [39:25, 2.07it/s]
 1/1 [=====] - 0s 379ms/step
 5158it [39:25, 1.95it/s]
 1/1 [=====] - 0s 318ms/step
 5159it [39:26, 2.00it/s]
 1/1 [=====] - 0s 341ms/step
 5160it [39:26, 2.01it/s]
 1/1 [=====] - 0s 342ms/step
 5161it [39:27, 2.00it/s]
 1/1 [=====] - 0s 422ms/step
 5162it [39:27, 1.91it/s]
 1/1 [=====] - 0s 370ms/step
 5163it [39:28, 1.86it/s]
 1/1 [=====] - 0s 332ms/step
 5164it [39:29, 1.89it/s]
 1/1 [=====] - 0s 327ms/step
 5165it [39:29, 1.93it/s]
 1/1 [=====] - 0s 328ms/step
 5166it [39:29, 1.99it/s]
 1/1 [=====] - 0s 350ms/step
 5167it [39:30, 1.98it/s]
 1/1 [=====] - 0s 404ms/step
 5168it [39:31, 1.92it/s]
 1/1 [=====] - 0s 329ms/step
 5169it [39:31, 1.93it/s]
 1/1 [=====] - 0s 420ms/step

5170it [39:32, 1.85it/s]
 1/1 [=====] - 0s 327ms/step
 5171it [39:32, 1.93it/s]
 1/1 [=====] - 0s 332ms/step
 5172it [39:33, 1.98it/s]
 1/1 [=====] - 0s 332ms/step
 5173it [39:33, 2.04it/s]
 1/1 [=====] - 0s 388ms/step
 5174it [39:34, 1.91it/s]
 1/1 [=====] - 0s 341ms/step
 5175it [39:34, 1.92it/s]
 1/1 [=====] - 0s 421ms/step
 5176it [39:35, 1.85it/s]
 1/1 [=====] - 0s 306ms/step
 5177it [39:35, 1.95it/s]
 1/1 [=====] - 0s 379ms/step
 5178it [39:36, 1.93it/s]
 1/1 [=====] - 0s 325ms/step
 5179it [39:36, 1.96it/s]
 1/1 [=====] - 0s 415ms/step
 5180it [39:37, 1.90it/s]
 1/1 [=====] - 0s 402ms/step
 5181it [39:37, 1.83it/s]
 1/1 [=====] - 0s 339ms/step
 5182it [39:38, 1.82it/s]
 1/1 [=====] - 0s 310ms/step
 5183it [39:38, 1.92it/s]
 1/1 [=====] - 0s 378ms/step
 5184it [39:39, 1.96it/s]
 1/1 [=====] - 0s 293ms/step
 5185it [39:39, 2.03it/s]
 1/1 [=====] - 0s 359ms/step

5186it [39:40, 2.06it/s]
 1/1 [=====] - 0s 354ms/step
 5187it [39:40, 2.07it/s]
 1/1 [=====] - 0s 387ms/step
 5188it [39:41, 1.99it/s]
 1/1 [=====] - 0s 325ms/step
 5189it [39:41, 2.03it/s]
 1/1 [=====] - 0s 318ms/step
 5190it [39:42, 2.06it/s]
 1/1 [=====] - 0s 343ms/step
 5191it [39:42, 2.05it/s]
 1/1 [=====] - 0s 330ms/step
 5192it [39:43, 2.08it/s]
 1/1 [=====] - 0s 420ms/step
 5193it [39:43, 2.01it/s]
 1/1 [=====] - 0s 412ms/step
 5194it [39:44, 1.92it/s]
 1/1 [=====] - 0s 295ms/step
 5195it [39:44, 2.06it/s]
 1/1 [=====] - 0s 393ms/step
 5196it [39:45, 2.04it/s]
 1/1 [=====] - 0s 315ms/step
 5197it [39:45, 2.07it/s]
 1/1 [=====] - 0s 366ms/step
 5198it [39:46, 2.03it/s]
 1/1 [=====] - 0s 412ms/step
 5199it [39:46, 1.92it/s]
 1/1 [=====] - 0s 412ms/step
 5200it [39:47, 1.86it/s]
 1/1 [=====] - 0s 315ms/step
 5201it [39:47, 1.93it/s]
 1/1 [=====] - 0s 334ms/step

5202it [39:48, 1.97it/s]
 1/1 [=====] - 0s 341ms/step
 5203it [39:48, 1.96it/s]
 1/1 [=====] - 0s 341ms/step
 5204it [39:49, 1.99it/s]
 1/1 [=====] - 0s 421ms/step
 5205it [39:49, 1.89it/s]
 1/1 [=====] - 0s 427ms/step
 5206it [39:50, 1.80it/s]
 1/1 [=====] - 0s 295ms/step
 5207it [39:50, 1.94it/s]
 1/1 [=====] - 0s 329ms/step
 5208it [39:51, 2.03it/s]
 1/1 [=====] - 0s 316ms/step
 5209it [39:51, 2.11it/s]
 1/1 [=====] - 0s 369ms/step
 5210it [39:52, 2.10it/s]
 1/1 [=====] - 0s 446ms/step
 5211it [39:52, 1.96it/s]
 1/1 [=====] - 0s 346ms/step
 5212it [39:53, 1.93it/s]
 1/1 [=====] - 0s 319ms/step
 5213it [39:53, 1.99it/s]
 1/1 [=====] - 0s 368ms/step
 5214it [39:54, 1.97it/s]
 1/1 [=====] - 0s 321ms/step
 5215it [39:54, 1.98it/s]
 1/1 [=====] - 0s 331ms/step
 5216it [39:55, 2.01it/s]
 1/1 [=====] - 0s 397ms/step
 5217it [39:55, 1.95it/s]
 1/1 [=====] - 0s 427ms/step

5218it [39:56, 1.82it/s]
 1/1 [=====] - 0s 310ms/step
 5219it [39:57, 1.91it/s]
 1/1 [=====] - 0s 320ms/step
 5220it [39:57, 1.98it/s]
 1/1 [=====] - 0s 353ms/step
 5221it [39:58, 1.95it/s]
 1/1 [=====] - 0s 347ms/step
 5222it [39:58, 1.95it/s]
 1/1 [=====] - 0s 372ms/step
 5223it [39:59, 1.95it/s]
 1/1 [=====] - 0s 349ms/step
 5224it [39:59, 1.99it/s]
 1/1 [=====] - 0s 415ms/step
 5225it [40:00, 1.93it/s]
 1/1 [=====] - 0s 299ms/step
 5226it [40:00, 2.03it/s]
 1/1 [=====] - 0s 333ms/step
 5227it [40:00, 2.09it/s]
 1/1 [=====] - 0s 410ms/step
 5228it [40:01, 1.98it/s]
 1/1 [=====] - 0s 343ms/step
 5229it [40:02, 1.99it/s]
 1/1 [=====] - 0s 402ms/step
 5230it [40:02, 1.87it/s]
 1/1 [=====] - 0s 388ms/step
 5231it [40:03, 1.84it/s]
 1/1 [=====] - 0s 323ms/step
 5232it [40:03, 1.90it/s]
 1/1 [=====] - 0s 326ms/step
 5233it [40:04, 1.95it/s]
 1/1 [=====] - 0s 348ms/step

5234it [40:04, 1.96it/s]
 1/1 [=====] - 0s 327ms/step
 5235it [40:05, 2.00it/s]
 1/1 [=====] - 0s 357ms/step
 5236it [40:05, 1.95it/s]
 1/1 [=====] - 1s 552ms/step
 5237it [40:06, 1.72it/s]
 1/1 [=====] - 0s 442ms/step
 5238it [40:07, 1.68it/s]
 1/1 [=====] - 0s 324ms/step
 5239it [40:07, 1.81it/s]
 1/1 [=====] - 0s 331ms/step
 5240it [40:08, 1.91it/s]
 1/1 [=====] - 0s 372ms/step
 5241it [40:08, 1.93it/s]
 1/1 [=====] - 0s 366ms/step
 5242it [40:09, 1.93it/s]
 1/1 [=====] - 1s 554ms/step
 5243it [40:09, 1.61it/s]
 1/1 [=====] - 1s 609ms/step
 5244it [40:10, 1.48it/s]
 1/1 [=====] - 0s 356ms/step
 5245it [40:11, 1.54it/s]
 1/1 [=====] - 0s 370ms/step
 5246it [40:11, 1.63it/s]
 1/1 [=====] - 0s 353ms/step
 5247it [40:12, 1.67it/s]
 1/1 [=====] - 0s 440ms/step
 5248it [40:12, 1.66it/s]
 1/1 [=====] - 0s 375ms/step
 5249it [40:13, 1.66it/s]
 1/1 [=====] - 0s 429ms/step

5250it [40:14, 1.65it/s]
 1/1 [=====] - 0s 348ms/step
 5251it [40:14, 1.71it/s]
 1/1 [=====] - 0s 348ms/step
 5252it [40:15, 1.75it/s]
 1/1 [=====] - 0s 431ms/step
 5253it [40:15, 1.74it/s]
 1/1 [=====] - 0s 325ms/step
 5254it [40:16, 1.83it/s]
 1/1 [=====] - 0s 381ms/step
 5255it [40:16, 1.83it/s]
 1/1 [=====] - 0s 477ms/step
 5256it [40:17, 1.74it/s]
 1/1 [=====] - 0s 335ms/step
 5257it [40:18, 1.80it/s]
 1/1 [=====] - 0s 324ms/step
 5258it [40:18, 1.88it/s]
 1/1 [=====] - 0s 352ms/step
 5259it [40:19, 1.87it/s]
 1/1 [=====] - 0s 359ms/step
 5260it [40:19, 1.87it/s]
 1/1 [=====] - 0s 382ms/step
 5261it [40:20, 1.82it/s]
 1/1 [=====] - 0s 360ms/step
 5262it [40:20, 1.83it/s]
 1/1 [=====] - 0s 314ms/step
 5263it [40:21, 1.90it/s]
 1/1 [=====] - 0s 318ms/step
 5264it [40:21, 1.97it/s]
 1/1 [=====] - 0s 383ms/step
 5265it [40:22, 1.95it/s]
 1/1 [=====] - 0s 327ms/step

5266it [40:22, 1.95it/s]
 1/1 [=====] - 0s 373ms/step
 5267it [40:23, 1.92it/s]
 1/1 [=====] - 0s 379ms/step
 5268it [40:23, 1.89it/s]
 1/1 [=====] - 0s 312ms/step
 5269it [40:24, 2.00it/s]
 1/1 [=====] - 0s 301ms/step
 5270it [40:24, 2.11it/s]
 1/1 [=====] - 0s 333ms/step
 5271it [40:25, 2.14it/s]
 1/1 [=====] - 0s 435ms/step
 5272it [40:25, 2.02it/s]
 1/1 [=====] - 0s 372ms/step
 5273it [40:26, 1.99it/s]
 1/1 [=====] - 0s 469ms/step
 5274it [40:26, 1.84it/s]
 1/1 [=====] - 0s 324ms/step
 5275it [40:27, 1.90it/s]
 1/1 [=====] - 0s 324ms/step
 5276it [40:27, 1.97it/s]
 1/1 [=====] - 0s 327ms/step
 5277it [40:28, 2.00it/s]
 1/1 [=====] - 0s 343ms/step
 5278it [40:28, 1.99it/s]
 1/1 [=====] - 0s 349ms/step
 5279it [40:29, 2.02it/s]
 1/1 [=====] - 0s 357ms/step
 5280it [40:29, 1.99it/s]
 1/1 [=====] - 0s 308ms/step
 5281it [40:30, 2.04it/s]
 1/1 [=====] - 0s 319ms/step

5282it [40:30, 2.05it/s]
 1/1 [=====] - 0s 367ms/step
 5283it [40:31, 2.03it/s]
 1/1 [=====] - 0s 340ms/step
 5284it [40:31, 2.02it/s]
 1/1 [=====] - 0s 350ms/step
 5285it [40:32, 2.01it/s]
 1/1 [=====] - 0s 370ms/step
 5286it [40:32, 1.94it/s]
 1/1 [=====] - 0s 342ms/step
 5287it [40:33, 1.92it/s]
 1/1 [=====] - 0s 309ms/step
 5288it [40:33, 2.03it/s]
 1/1 [=====] - 0s 345ms/step
 5289it [40:34, 2.08it/s]
 1/1 [=====] - 0s 351ms/step
 5290it [40:34, 2.04it/s]
 1/1 [=====] - 0s 327ms/step
 5291it [40:35, 2.10it/s]
 1/1 [=====] - 0s 391ms/step
 5292it [40:35, 2.07it/s]
 1/1 [=====] - 0s 335ms/step
 5293it [40:36, 2.06it/s]
 1/1 [=====] - 0s 313ms/step
 5294it [40:36, 2.08it/s]
 1/1 [=====] - 0s 321ms/step
 5295it [40:37, 2.10it/s]
 1/1 [=====] - 0s 346ms/step
 5296it [40:37, 2.07it/s]
 1/1 [=====] - 0s 431ms/step
 5297it [40:38, 1.95it/s]
 1/1 [=====] - 0s 382ms/step

5298it [40:38, 1.91it/s]
 1/1 [=====] - 0s 388ms/step
 5299it [40:39, 1.88it/s]
 1/1 [=====] - 0s 358ms/step
 5300it [40:39, 1.88it/s]
 1/1 [=====] - 0s 338ms/step
 5301it [40:40, 1.90it/s]
 1/1 [=====] - 0s 354ms/step
 5302it [40:40, 1.88it/s]
 1/1 [=====] - 0s 388ms/step
 5303it [40:41, 1.85it/s]
 1/1 [=====] - 0s 334ms/step
 5304it [40:41, 1.87it/s]
 1/1 [=====] - 0s 359ms/step
 5305it [40:42, 1.89it/s]
 1/1 [=====] - 0s 336ms/step
 5306it [40:42, 1.89it/s]
 1/1 [=====] - 0s 338ms/step
 5307it [40:43, 1.94it/s]
 1/1 [=====] - 0s 311ms/step
 5308it [40:43, 2.04it/s]
 1/1 [=====] - 0s 329ms/step
 5309it [40:44, 2.11it/s]
 1/1 [=====] - 0s 374ms/step
 5310it [40:44, 2.09it/s]
 1/1 [=====] - 0s 350ms/step
 5311it [40:45, 2.05it/s]
 1/1 [=====] - 0s 421ms/step
 5312it [40:45, 1.94it/s]
 1/1 [=====] - 0s 364ms/step
 5313it [40:46, 1.92it/s]
 1/1 [=====] - 0s 342ms/step

5314it [40:46, 1.89it/s]
 1/1 [=====] - 0s 321ms/step
 5315it [40:47, 1.96it/s]
 1/1 [=====] - 0s 329ms/step
 5316it [40:47, 2.00it/s]
 1/1 [=====] - 0s 343ms/step
 5317it [40:48, 2.00it/s]
 1/1 [=====] - 0s 354ms/step
 5318it [40:48, 1.98it/s]
 1/1 [=====] - 0s 346ms/step
 5319it [40:49, 1.99it/s]
 1/1 [=====] - 0s 371ms/step
 5320it [40:49, 1.95it/s]
 1/1 [=====] - 0s 352ms/step
 5321it [40:50, 1.95it/s]
 1/1 [=====] - 0s 331ms/step
 5322it [40:50, 1.99it/s]
 1/1 [=====] - 0s 318ms/step
 5323it [40:51, 2.02it/s]
 1/1 [=====] - 0s 357ms/step
 5324it [40:51, 2.01it/s]
 1/1 [=====] - 0s 363ms/step
 5325it [40:52, 2.02it/s]
 1/1 [=====] - 0s 372ms/step
 5326it [40:52, 1.92it/s]
 1/1 [=====] - 0s 325ms/step
 5327it [40:53, 1.99it/s]
 1/1 [=====] - 0s 310ms/step
 5328it [40:53, 2.07it/s]
 1/1 [=====] - 0s 334ms/step
 5329it [40:54, 2.12it/s]
 1/1 [=====] - 0s 334ms/step

5330it [40:54, 2.10it/s]
 1/1 [=====] - 0s 360ms/step
 5331it [40:55, 2.05it/s]
 1/1 [=====] - 0s 373ms/step
 5332it [40:55, 2.01it/s]
 1/1 [=====] - 0s 351ms/step
 5333it [40:56, 1.99it/s]
 1/1 [=====] - 0s 366ms/step
 5334it [40:56, 1.96it/s]
 1/1 [=====] - 0s 380ms/step
 5335it [40:57, 1.93it/s]
 1/1 [=====] - 0s 326ms/step
 5336it [40:57, 1.97it/s]
 1/1 [=====] - 0s 323ms/step
 5337it [40:58, 2.02it/s]
 1/1 [=====] - 0s 349ms/step
 5338it [40:58, 1.97it/s]
 1/1 [=====] - 0s 355ms/step
 5339it [40:59, 1.96it/s]
 1/1 [=====] - 0s 340ms/step
 5340it [40:59, 1.99it/s]
 1/1 [=====] - 0s 351ms/step
 5341it [41:00, 1.98it/s]
 1/1 [=====] - 0s 347ms/step
 5342it [41:00, 2.01it/s]
 1/1 [=====] - 0s 324ms/step
 5343it [41:01, 2.06it/s]
 1/1 [=====] - 0s 310ms/step
 5344it [41:01, 2.12it/s]
 1/1 [=====] - 0s 404ms/step
 5345it [41:02, 2.03it/s]
 1/1 [=====] - 0s 355ms/step

5346it [41:02, 2.01it/s]
 1/1 [=====] - 0s 356ms/step
 5347it [41:03, 1.93it/s]
 1/1 [=====] - 0s 339ms/step
 5348it [41:03, 1.96it/s]
 1/1 [=====] - 0s 338ms/step
 5349it [41:04, 1.97it/s]
 1/1 [=====] - 0s 317ms/step
 5350it [41:04, 1.97it/s]
 1/1 [=====] - 0s 332ms/step
 5351it [41:05, 2.00it/s]
 1/1 [=====] - 0s 380ms/step
 5352it [41:05, 1.96it/s]
 1/1 [=====] - 0s 359ms/step
 5353it [41:06, 1.95it/s]
 1/1 [=====] - 0s 372ms/step
 5354it [41:06, 1.93it/s]
 1/1 [=====] - 0s 351ms/step
 5355it [41:07, 1.95it/s]
 1/1 [=====] - 0s 341ms/step
 5356it [41:07, 1.97it/s]
 1/1 [=====] - 0s 298ms/step
 5357it [41:08, 2.09it/s]
 1/1 [=====] - 0s 307ms/step
 5358it [41:08, 2.18it/s]
 1/1 [=====] - 0s 417ms/step
 5359it [41:09, 2.06it/s]
 1/1 [=====] - 0s 367ms/step
 5360it [41:09, 1.98it/s]
 1/1 [=====] - 0s 348ms/step
 5361it [41:10, 1.92it/s]
 1/1 [=====] - 0s 376ms/step

5362it [41:11, 1.87it/s]
 1/1 [=====] - 0s 338ms/step
 5363it [41:11, 1.91it/s]
 1/1 [=====] - 0s 321ms/step
 5364it [41:11, 1.97it/s]
 1/1 [=====] - 0s 314ms/step
 5365it [41:12, 2.03it/s]
 1/1 [=====] - 0s 354ms/step
 5366it [41:12, 2.01it/s]
 1/1 [=====] - 0s 349ms/step
 5367it [41:13, 2.01it/s]
 1/1 [=====] - 0s 352ms/step
 5368it [41:13, 1.99it/s]
 1/1 [=====] - 0s 370ms/step
 5369it [41:14, 1.95it/s]
 1/1 [=====] - 0s 344ms/step
 5370it [41:15, 1.97it/s]
 1/1 [=====] - 0s 331ms/step
 5371it [41:15, 1.99it/s]
 1/1 [=====] - 0s 321ms/step
 5372it [41:15, 2.02it/s]
 1/1 [=====] - 0s 369ms/step
 5373it [41:16, 1.98it/s]
 1/1 [=====] - 0s 360ms/step
 5374it [41:17, 1.91it/s]
 1/1 [=====] - 0s 350ms/step
 5375it [41:17, 1.89it/s]
 1/1 [=====] - 0s 350ms/step
 5376it [41:18, 1.94it/s]
 1/1 [=====] - 0s 323ms/step
 5377it [41:18, 2.00it/s]
 1/1 [=====] - 0s 289ms/step

5378it [41:18, 2.08it/s]
 1/1 [=====] - 0s 328ms/step
 5379it [41:19, 2.15it/s]
 1/1 [=====] - 0s 353ms/step
 5380it [41:19, 2.07it/s]
 1/1 [=====] - 0s 354ms/step
 5381it [41:20, 2.03it/s]
 1/1 [=====] - 0s 345ms/step
 5382it [41:20, 2.01it/s]
 1/1 [=====] - 0s 355ms/step
 5383it [41:21, 2.00it/s]
 1/1 [=====] - 0s 400ms/step
 5384it [41:22, 1.93it/s]
 1/1 [=====] - 0s 315ms/step
 5385it [41:22, 1.99it/s]
 1/1 [=====] - 0s 326ms/step
 5386it [41:23, 1.97it/s]
 1/1 [=====] - 0s 353ms/step
 5387it [41:23, 1.97it/s]
 1/1 [=====] - 0s 229ms/step
 5388it [41:23, 2.17it/s]
 1/1 [=====] - 0s 355ms/step
 5389it [41:24, 2.11it/s]
 1/1 [=====] - 0s 355ms/step
 5390it [41:24, 2.07it/s]
 1/1 [=====] - 0s 364ms/step
 5391it [41:25, 2.03it/s]
 1/1 [=====] - 0s 331ms/step
 5392it [41:25, 1.97it/s]
 1/1 [=====] - 0s 326ms/step
 5393it [41:26, 2.03it/s]
 1/1 [=====] - 0s 289ms/step

5394it [41:26, 2.14it/s]
 1/1 [=====] - 0s 353ms/step
 5395it [41:27, 2.12it/s]
 1/1 [=====] - 0s 298ms/step
 5396it [41:27, 2.21it/s]
 1/1 [=====] - 0s 338ms/step
 5397it [41:28, 2.21it/s]
 1/1 [=====] - 0s 331ms/step
 5398it [41:28, 2.09it/s]
 1/1 [=====] - 0s 401ms/step
 5399it [41:29, 2.03it/s]
 1/1 [=====] - 0s 290ms/step
 5400it [41:29, 2.15it/s]
 1/1 [=====] - 0s 301ms/step
 5401it [41:30, 2.25it/s]
 1/1 [=====] - 0s 340ms/step
 5402it [41:30, 2.26it/s]
 1/1 [=====] - 0s 319ms/step
 5403it [41:30, 2.18it/s]
 1/1 [=====] - 0s 333ms/step
 5404it [41:31, 2.22it/s]
 1/1 [=====] - 0s 404ms/step
 5405it [41:31, 2.13it/s]
 1/1 [=====] - 0s 342ms/step
 5406it [41:32, 2.13it/s]
 1/1 [=====] - 0s 309ms/step
 5407it [41:32, 2.21it/s]
 1/1 [=====] - 0s 300ms/step
 5408it [41:33, 2.29it/s]
 1/1 [=====] - 0s 327ms/step
 5409it [41:33, 2.30it/s]
 1/1 [=====] - 0s 287ms/step

5410it [41:34, 2.31it/s]
 1/1 [=====] - 0s 350ms/step
 5411it [41:34, 2.24it/s]
 1/1 [=====] - 0s 366ms/step
 5412it [41:35, 2.18it/s]
 1/1 [=====] - 0s 337ms/step
 5413it [41:35, 2.18it/s]
 1/1 [=====] - 0s 310ms/step
 5414it [41:35, 2.25it/s]
 1/1 [=====] - 0s 293ms/step
 5415it [41:36, 2.32it/s]
 1/1 [=====] - 0s 349ms/step
 5416it [41:36, 2.28it/s]
 1/1 [=====] - 0s 347ms/step
 5417it [41:37, 2.28it/s]
 1/1 [=====] - 0s 362ms/step
 5418it [41:37, 2.15it/s]
 1/1 [=====] - 0s 340ms/step
 5419it [41:38, 2.16it/s]
 1/1 [=====] - 0s 295ms/step
 5420it [41:38, 2.25it/s]
 1/1 [=====] - 0s 333ms/step
 5421it [41:38, 2.27it/s]
 1/1 [=====] - 0s 344ms/step
 5422it [41:39, 2.16it/s]
 1/1 [=====] - 0s 385ms/step
 5423it [41:40, 2.11it/s]
 1/1 [=====] - 0s 412ms/step
 5424it [41:40, 2.01it/s]
 1/1 [=====] - 0s 313ms/step
 5425it [41:40, 2.11it/s]
 1/1 [=====] - 0s 288ms/step

5426it [41:41, 2.22it/s]
 1/1 [=====] - 0s 361ms/step
 5427it [41:41, 2.21it/s]
 1/1 [=====] - 0s 333ms/step
 5428it [41:42, 2.22it/s]
 1/1 [=====] - 0s 333ms/step
 5429it [41:42, 2.18it/s]
 1/1 [=====] - 0s 379ms/step
 5430it [41:43, 2.13it/s]
 1/1 [=====] - 0s 308ms/step
 5431it [41:43, 2.19it/s]
 1/1 [=====] - 0s 293ms/step
 5432it [41:44, 2.26it/s]
 1/1 [=====] - 0s 364ms/step
 5433it [41:44, 2.23it/s]
 1/1 [=====] - 0s 328ms/step
 5434it [41:45, 2.14it/s]
 1/1 [=====] - 0s 327ms/step
 5435it [41:45, 2.18it/s]
 1/1 [=====] - 0s 331ms/step
 5436it [41:45, 2.18it/s]
 1/1 [=====] - 0s 350ms/step
 5437it [41:46, 2.13it/s]
 1/1 [=====] - 0s 292ms/step
 5438it [41:46, 2.24it/s]
 1/1 [=====] - 0s 357ms/step
 5439it [41:47, 2.23it/s]
 1/1 [=====] - 0s 348ms/step
 5440it [41:47, 2.18it/s]
 1/1 [=====] - 0s 331ms/step
 5441it [41:48, 2.18it/s]
 1/1 [=====] - 0s 341ms/step

5442it [41:48, 2.20it/s]
 1/1 [=====] - 0s 376ms/step
 5443it [41:49, 2.13it/s]
 1/1 [=====] - 0s 316ms/step
 5444it [41:49, 2.21it/s]
 1/1 [=====] - 0s 328ms/step
 5445it [41:50, 2.26it/s]
 1/1 [=====] - 0s 338ms/step
 5446it [41:50, 2.14it/s]
 1/1 [=====] - 0s 385ms/step
 5447it [41:51, 2.07it/s]
 1/1 [=====] - 0s 318ms/step
 5448it [41:51, 2.14it/s]
 1/1 [=====] - 0s 393ms/step
 5449it [41:52, 1.98it/s]
 1/1 [=====] - 0s 309ms/step
 5450it [41:52, 2.08it/s]
 1/1 [=====] - 0s 317ms/step
 5451it [41:52, 2.17it/s]
 1/1 [=====] - 0s 323ms/step
 5452it [41:53, 2.22it/s]
 1/1 [=====] - 0s 283ms/step
 5453it [41:53, 2.33it/s]
 1/1 [=====] - 0s 332ms/step
 5454it [41:54, 2.31it/s]
 1/1 [=====] - 0s 375ms/step
 5455it [41:54, 2.24it/s]
 1/1 [=====] - 0s 320ms/step
 5456it [41:55, 2.06it/s]
 1/1 [=====] - 0s 303ms/step
 5457it [41:55, 2.15it/s]
 1/1 [=====] - 0s 339ms/step

5458it [41:56, 2.15it/s]
 1/1 [=====] - 0s 324ms/step
 5459it [41:56, 2.17it/s]
 1/1 [=====] - 0s 287ms/step
 5460it [41:56, 2.27it/s]
 1/1 [=====] - 0s 335ms/step
 5461it [41:57, 2.27it/s]
 1/1 [=====] - 0s 393ms/step
 5462it [41:57, 2.12it/s]
 1/1 [=====] - 0s 310ms/step
 5463it [41:58, 2.19it/s]
 1/1 [=====] - 0s 300ms/step
 5464it [41:58, 2.27it/s]
 1/1 [=====] - 0s 375ms/step
 5465it [41:59, 2.16it/s]
 1/1 [=====] - 0s 325ms/step
 5466it [41:59, 2.18it/s]
 1/1 [=====] - 0s 367ms/step
 5467it [42:00, 2.15it/s]
 1/1 [=====] - 0s 315ms/step
 5468it [42:00, 2.19it/s]
 1/1 [=====] - 0s 401ms/step
 5469it [42:01, 2.13it/s]
 1/1 [=====] - 0s 300ms/step
 5470it [42:01, 2.18it/s]
 1/1 [=====] - 0s 386ms/step
 5471it [42:02, 2.12it/s]
 1/1 [=====] - 0s 330ms/step
 5472it [42:02, 2.15it/s]
 1/1 [=====] - 0s 432ms/step
 5473it [42:03, 2.00it/s]
 1/1 [=====] - 0s 373ms/step

5474it [42:03, 1.99it/s]
 1/1 [=====] - 0s 303ms/step
 5475it [42:04, 2.10it/s]
 1/1 [=====] - 0s 327ms/step
 5476it [42:04, 2.17it/s]
 1/1 [=====] - 0s 328ms/step
 5477it [42:04, 2.13it/s]
 1/1 [=====] - 0s 327ms/step
 5478it [42:05, 2.15it/s]
 1/1 [=====] - 0s 426ms/step
 5479it [42:05, 2.06it/s]
 1/1 [=====] - 0s 313ms/step
 5480it [42:06, 2.16it/s]
 1/1 [=====] - 0s 404ms/step
 5481it [42:06, 2.10it/s]
 1/1 [=====] - 0s 341ms/step
 5482it [42:07, 2.06it/s]
 1/1 [=====] - 0s 292ms/step
 5483it [42:07, 2.20it/s]
 1/1 [=====] - 0s 391ms/step
 5484it [42:08, 2.13it/s]
 1/1 [=====] - 0s 339ms/step
 5485it [42:08, 2.13it/s]
 1/1 [=====] - 0s 297ms/step
 5486it [42:09, 2.23it/s]
 1/1 [=====] - 0s 446ms/step
 5487it [42:09, 2.04it/s]
 1/1 [=====] - 0s 379ms/step
 5488it [42:10, 2.01it/s]
 1/1 [=====] - 0s 323ms/step
 5489it [42:10, 2.06it/s]
 1/1 [=====] - 0s 469ms/step

5490it [42:11, 1.92it/s]
 1/1 [=====] - 0s 358ms/step
 5491it [42:11, 1.96it/s]
 1/1 [=====] - 0s 300ms/step
 5492it [42:12, 2.06it/s]
 1/1 [=====] - 0s 402ms/step
 5493it [42:12, 2.03it/s]
 1/1 [=====] - 0s 318ms/step
 5494it [42:13, 2.10it/s]
 1/1 [=====] - 0s 334ms/step
 5495it [42:13, 2.14it/s]
 1/1 [=====] - 0s 330ms/step
 5496it [42:14, 2.14it/s]
 1/1 [=====] - 0s 322ms/step
 5497it [42:14, 2.20it/s]
 1/1 [=====] - 0s 310ms/step
 5498it [42:14, 2.16it/s]
 1/1 [=====] - 0s 329ms/step
 5499it [42:15, 2.18it/s]
 1/1 [=====] - 0s 398ms/step
 5500it [42:15, 2.09it/s]
 1/1 [=====] - 0s 310ms/step
 5501it [42:16, 2.19it/s]
 1/1 [=====] - 0s 372ms/step
 5502it [42:16, 2.14it/s]
 1/1 [=====] - 0s 413ms/step
 5503it [42:17, 2.03it/s]
 1/1 [=====] - 0s 309ms/step
 5504it [42:17, 2.13it/s]
 1/1 [=====] - 0s 421ms/step
 5505it [42:18, 2.03it/s]
 1/1 [=====] - 0s 331ms/step

5506it [42:18, 1.95it/s]
 1/1 [=====] - 0s 318ms/step
 5507it [42:19, 2.07it/s]
 1/1 [=====] - 0s 345ms/step
 5508it [42:19, 2.04it/s]
 1/1 [=====] - 0s 389ms/step
 5509it [42:20, 2.02it/s]
 1/1 [=====] - 0s 410ms/step
 5510it [42:20, 1.99it/s]
 1/1 [=====] - 0s 328ms/step
 5511it [42:21, 2.04it/s]
 1/1 [=====] - 0s 399ms/step
 5512it [42:21, 2.00it/s]
 1/1 [=====] - 0s 317ms/step
 5513it [42:22, 2.08it/s]
 1/1 [=====] - 0s 400ms/step
 5514it [42:22, 2.05it/s]
 1/1 [=====] - 0s 330ms/step
 5515it [42:23, 2.13it/s]
 1/1 [=====] - 0s 330ms/step
 5516it [42:23, 2.15it/s]
 1/1 [=====] - 0s 327ms/step
 5517it [42:24, 2.18it/s]
 1/1 [=====] - 0s 364ms/step
 5518it [42:24, 2.10it/s]
 1/1 [=====] - 0s 343ms/step
 5519it [42:25, 2.13it/s]
 1/1 [=====] - 0s 344ms/step
 5520it [42:25, 2.12it/s]
 1/1 [=====] - 0s 308ms/step
 5521it [42:25, 2.20it/s]
 1/1 [=====] - 0s 436ms/step

5522it [42:26, 2.08it/s]
 1/1 [=====] - 0s 314ms/step
 5523it [42:26, 2.15it/s]
 1/1 [=====] - 0s 346ms/step
 5524it [42:27, 2.18it/s]
 1/1 [=====] - 0s 415ms/step
 5525it [42:27, 2.04it/s]
 1/1 [=====] - 0s 326ms/step
 5526it [42:28, 2.11it/s]
 1/1 [=====] - 0s 330ms/step
 5527it [42:28, 2.13it/s]
 1/1 [=====] - 0s 335ms/step
 5528it [42:29, 2.11it/s]
 1/1 [=====] - 0s 351ms/step
 5529it [42:29, 2.11it/s]
 1/1 [=====] - 0s 369ms/step
 5530it [42:30, 2.08it/s]
 1/1 [=====] - 0s 318ms/step
 5531it [42:30, 2.14it/s]
 1/1 [=====] - 0s 409ms/step
 5532it [42:31, 2.05it/s]
 1/1 [=====] - 0s 317ms/step
 5533it [42:31, 2.12it/s]
 1/1 [=====] - 0s 389ms/step
 5534it [42:32, 2.10it/s]
 1/1 [=====] - 0s 325ms/step
 5535it [42:32, 2.13it/s]
 1/1 [=====] - 0s 374ms/step
 5536it [42:33, 2.10it/s]
 1/1 [=====] - 0s 323ms/step
 5537it [42:33, 2.17it/s]
 1/1 [=====] - 0s 323ms/step

5538it [42:33, 2.22it/s]
 1/1 [=====] - 0s 385ms/step
 5539it [42:34, 2.12it/s]
 1/1 [=====] - 0s 358ms/step
 5540it [42:34, 2.10it/s]
 1/1 [=====] - 0s 333ms/step
 5541it [42:35, 2.12it/s]
 1/1 [=====] - 0s 307ms/step
 5542it [42:35, 2.15it/s]
 1/1 [=====] - 0s 408ms/step
 5543it [42:36, 2.07it/s]
 1/1 [=====] - 0s 327ms/step
 5544it [42:36, 2.14it/s]
 1/1 [=====] - 0s 285ms/step
 5545it [42:37, 2.24it/s]
 1/1 [=====] - 0s 418ms/step
 5546it [42:37, 2.10it/s]
 1/1 [=====] - 0s 388ms/step
 5547it [42:38, 2.04it/s]
 1/1 [=====] - 0s 333ms/step
 5548it [42:38, 2.11it/s]
 1/1 [=====] - 0s 372ms/step
 5549it [42:39, 2.12it/s]
 1/1 [=====] - 0s 343ms/step
 5550it [42:39, 2.13it/s]
 1/1 [=====] - 0s 311ms/step
 5551it [42:40, 2.21it/s]
 1/1 [=====] - 0s 348ms/step
 5552it [42:40, 2.11it/s]
 1/1 [=====] - 0s 331ms/step
 5553it [42:41, 2.15it/s]
 1/1 [=====] - 0s 391ms/step

5554it [42:41, 2.07it/s]
 1/1 [=====] - 0s 322ms/step
 5555it [42:42, 2.10it/s]
 1/1 [=====] - 0s 375ms/step
 5556it [42:42, 2.08it/s]
 1/1 [=====] - 0s 344ms/step
 5557it [42:43, 2.09it/s]
 1/1 [=====] - 0s 286ms/step
 5558it [42:43, 2.22it/s]
 1/1 [=====] - 0s 376ms/step
 5559it [42:43, 2.15it/s]
 1/1 [=====] - 0s 451ms/step
 5560it [42:44, 2.02it/s]
 1/1 [=====] - 0s 308ms/step
 5561it [42:44, 2.09it/s]
 1/1 [=====] - 0s 352ms/step
 5562it [42:45, 2.07it/s]
 1/1 [=====] - 0s 318ms/step
 5563it [42:45, 2.12it/s]
 1/1 [=====] - 0s 414ms/step
 5564it [42:46, 2.01it/s]
 1/1 [=====] - 0s 349ms/step
 5565it [42:46, 2.04it/s]
 1/1 [=====] - 0s 319ms/step
 5566it [42:47, 2.08it/s]
 1/1 [=====] - 0s 334ms/step
 5567it [42:47, 2.03it/s]
 1/1 [=====] - 0s 346ms/step
 5568it [42:48, 2.07it/s]
 1/1 [=====] - 0s 405ms/step
 5569it [42:48, 2.03it/s]
 1/1 [=====] - 0s 301ms/step

5570it [42:49, 2.15it/s]
 1/1 [=====] - 0s 408ms/step
 5571it [42:49, 2.04it/s]
 1/1 [=====] - 0s 312ms/step
 5572it [42:50, 2.12it/s]
 1/1 [=====] - 0s 424ms/step
 5573it [42:50, 2.02it/s]
 1/1 [=====] - 0s 401ms/step
 5574it [42:51, 2.01it/s]
 1/1 [=====] - 0s 312ms/step
 5575it [42:51, 2.11it/s]
 1/1 [=====] - 0s 313ms/step
 5576it [42:52, 2.21it/s]
 1/1 [=====] - 0s 390ms/step
 5577it [42:52, 2.12it/s]
 1/1 [=====] - 0s 334ms/step
 5578it [42:53, 2.10it/s]
 1/1 [=====] - 0s 347ms/step
 5579it [42:53, 2.13it/s]
 1/1 [=====] - 0s 300ms/step
 5580it [42:53, 2.15it/s]
 1/1 [=====] - 0s 346ms/step
 5581it [42:54, 2.18it/s]
 1/1 [=====] - 0s 343ms/step
 5582it [42:54, 2.09it/s]
 1/1 [=====] - 0s 296ms/step
 5583it [42:55, 2.17it/s]
 1/1 [=====] - 0s 398ms/step
 5584it [42:55, 2.10it/s]
 1/1 [=====] - 0s 322ms/step
 5585it [42:56, 2.17it/s]
 1/1 [=====] - 0s 389ms/step

5586it [42:56, 2.11it/s]
 1/1 [=====] - 0s 363ms/step
 5587it [42:57, 2.09it/s]
 1/1 [=====] - 0s 301ms/step
 5588it [42:57, 2.20it/s]
 1/1 [=====] - 0s 391ms/step
 5589it [42:58, 2.13it/s]
 1/1 [=====] - 0s 358ms/step
 5590it [42:58, 2.11it/s]
 1/1 [=====] - 0s 343ms/step
 5591it [42:59, 2.04it/s]
 1/1 [=====] - 0s 312ms/step
 5592it [42:59, 2.12it/s]
 1/1 [=====] - 0s 329ms/step
 5593it [43:00, 2.14it/s]
 1/1 [=====] - 0s 382ms/step
 5594it [43:00, 2.12it/s]
 1/1 [=====] - 0s 357ms/step
 5595it [43:01, 2.09it/s]
 1/1 [=====] - 0s 317ms/step
 5596it [43:01, 2.09it/s]
 1/1 [=====] - 0s 387ms/step
 5597it [43:02, 2.06it/s]
 1/1 [=====] - 0s 339ms/step
 5598it [43:02, 2.12it/s]
 1/1 [=====] - 0s 333ms/step
 5599it [43:02, 2.09it/s]
 1/1 [=====] - 0s 324ms/step
 5600it [43:03, 2.10it/s]
 1/1 [=====] - 0s 424ms/step
 5601it [43:03, 2.02it/s]
 1/1 [=====] - 0s 352ms/step

5602it [43:04, 2.00it/s]
 1/1 [=====] - 0s 359ms/step
 5603it [43:04, 2.04it/s]
 1/1 [=====] - 0s 315ms/step
 5604it [43:05, 2.02it/s]
 1/1 [=====] - 0s 324ms/step
 5605it [43:05, 2.10it/s]
 1/1 [=====] - 0s 397ms/step
 5606it [43:06, 2.07it/s]
 1/1 [=====] - 0s 378ms/step
 5607it [43:06, 2.04it/s]
 1/1 [=====] - 0s 324ms/step
 5608it [43:07, 2.12it/s]
 1/1 [=====] - 0s 311ms/step
 5609it [43:07, 2.19it/s]
 1/1 [=====] - 0s 376ms/step
 5610it [43:08, 2.14it/s]
 1/1 [=====] - 0s 353ms/step
 5611it [43:08, 2.12it/s]
 1/1 [=====] - 0s 326ms/step
 5612it [43:09, 2.15it/s]
 1/1 [=====] - 0s 334ms/step
 5613it [43:09, 2.17it/s]
 1/1 [=====] - 0s 324ms/step
 5614it [43:10, 2.12it/s]
 1/1 [=====] - 0s 342ms/step
 5615it [43:10, 2.17it/s]
 1/1 [=====] - 0s 327ms/step
 5616it [43:11, 2.12it/s]
 1/1 [=====] - 0s 340ms/step
 5617it [43:11, 2.15it/s]
 1/1 [=====] - 0s 340ms/step

5618it [43:11, 2.14it/s]
 1/1 [=====] - 0s 347ms/step
 5619it [43:12, 2.17it/s]
 1/1 [=====] - 0s 352ms/step
 5620it [43:12, 2.14it/s]
 1/1 [=====] - 0s 369ms/step
 5621it [43:13, 2.09it/s]
 1/1 [=====] - 0s 419ms/step
 5622it [43:13, 2.02it/s]
 1/1 [=====] - 0s 317ms/step
 5623it [43:14, 2.08it/s]
 1/1 [=====] - 0s 327ms/step
 5624it [43:14, 2.13it/s]
 1/1 [=====] - 0s 411ms/step
 5625it [43:15, 2.06it/s]
 1/1 [=====] - 0s 316ms/step
 5626it [43:15, 2.09it/s]
 1/1 [=====] - 0s 365ms/step
 5627it [43:16, 2.08it/s]
 1/1 [=====] - 0s 378ms/step
 5628it [43:16, 2.05it/s]
 1/1 [=====] - 0s 322ms/step
 5629it [43:17, 2.13it/s]
 1/1 [=====] - 0s 334ms/step
 5630it [43:17, 2.12it/s]
 1/1 [=====] - 0s 339ms/step
 5631it [43:18, 2.09it/s]
 1/1 [=====] - 0s 340ms/step
 5632it [43:18, 2.10it/s]
 1/1 [=====] - 0s 305ms/step
 5633it [43:19, 2.16it/s]
 1/1 [=====] - 0s 386ms/step

5634it [43:19, 2.09it/s]
 1/1 [=====] - 0s 350ms/step
 5635it [43:20, 2.11it/s]
 1/1 [=====] - 0s 328ms/step
 5636it [43:20, 2.11it/s]
 1/1 [=====] - 0s 363ms/step
 5637it [43:21, 2.06it/s]
 1/1 [=====] - 0s 328ms/step
 5638it [43:21, 1.99it/s]
 1/1 [=====] - 0s 348ms/step
 5639it [43:22, 1.97it/s]
 1/1 [=====] - 0s 350ms/step
 5640it [43:22, 1.98it/s]
 1/1 [=====] - 0s 324ms/step
 5641it [43:23, 1.99it/s]
 1/1 [=====] - 0s 386ms/step
 5642it [43:23, 2.00it/s]
 1/1 [=====] - 0s 331ms/step
 5643it [43:24, 2.04it/s]
 1/1 [=====] - 0s 354ms/step
 5644it [43:24, 2.05it/s]
 1/1 [=====] - 0s 334ms/step
 5645it [43:25, 2.13it/s]
 1/1 [=====] - 0s 309ms/step
 5646it [43:25, 2.19it/s]
 1/1 [=====] - 0s 380ms/step
 5647it [43:25, 2.14it/s]
 1/1 [=====] - 0s 338ms/step
 5648it [43:26, 2.14it/s]
 1/1 [=====] - 0s 285ms/step
 5649it [43:26, 2.22it/s]
 1/1 [=====] - 0s 336ms/step

5650it [43:27, 2.13it/s]
 1/1 [=====] - 0s 310ms/step
 5651it [43:27, 2.21it/s]
 1/1 [=====] - 0s 348ms/step
 5652it [43:28, 2.16it/s]
 1/1 [=====] - 0s 366ms/step
 5653it [43:28, 2.12it/s]
 1/1 [=====] - 0s 298ms/step
 5654it [43:29, 2.21it/s]
 1/1 [=====] - 0s 338ms/step
 5655it [43:29, 2.20it/s]
 1/1 [=====] - 0s 350ms/step
 5656it [43:30, 2.16it/s]
 1/1 [=====] - 0s 294ms/step
 5657it [43:30, 2.26it/s]
 1/1 [=====] - 0s 339ms/step
 5658it [43:30, 2.23it/s]
 1/1 [=====] - 0s 388ms/step
 5659it [43:31, 2.15it/s]
 1/1 [=====] - 0s 292ms/step
 5660it [43:31, 2.24it/s]
 1/1 [=====] - 0s 341ms/step
 5661it [43:32, 2.23it/s]
 1/1 [=====] - 0s 319ms/step
 5662it [43:32, 2.19it/s]
 1/1 [=====] - 0s 328ms/step
 5663it [43:33, 2.21it/s]
 1/1 [=====] - 0s 323ms/step
 5664it [43:33, 2.18it/s]
 1/1 [=====] - 0s 344ms/step
 5665it [43:34, 2.21it/s]
 1/1 [=====] - 0s 319ms/step

5666it [43:34, 2.18it/s]
 1/1 [=====] - 0s 326ms/step
 5667it [43:35, 2.20it/s]
 1/1 [=====] - 0s 426ms/step
 5668it [43:35, 2.06it/s]
 1/1 [=====] - 0s 335ms/step
 5669it [43:36, 2.13it/s]
 1/1 [=====] - 0s 396ms/step
 5670it [43:36, 2.07it/s]
 1/1 [=====] - 0s 336ms/step
 5671it [43:36, 2.12it/s]
 1/1 [=====] - 0s 302ms/step
 5672it [43:37, 2.21it/s]
 1/1 [=====] - 0s 398ms/step
 5673it [43:37, 2.12it/s]
 1/1 [=====] - 0s 332ms/step
 5674it [43:38, 2.12it/s]
 1/1 [=====] - 0s 296ms/step
 5675it [43:38, 2.22it/s]
 1/1 [=====] - 0s 368ms/step
 5676it [43:39, 2.15it/s]
 1/1 [=====] - 0s 366ms/step
 5677it [43:39, 2.13it/s]
 1/1 [=====] - 0s 321ms/step
 5678it [43:40, 2.18it/s]
 1/1 [=====] - 0s 409ms/step
 5679it [43:40, 2.09it/s]
 1/1 [=====] - 0s 368ms/step
 5680it [43:41, 2.10it/s]
 1/1 [=====] - 0s 336ms/step
 5681it [43:41, 2.16it/s]
 1/1 [=====] - 0s 432ms/step

5682it [43:42, 2.05it/s]
 1/1 [=====] - 0s 310ms/step
 5683it [43:42, 2.12it/s]
 1/1 [=====] - 0s 319ms/step
 5684it [43:43, 2.19it/s]
 1/1 [=====] - 0s 353ms/step
 5685it [43:43, 2.15it/s]
 1/1 [=====] - 0s 331ms/step
 5686it [43:44, 2.11it/s]
 1/1 [=====] - 0s 334ms/step
 5687it [43:44, 2.16it/s]
 1/1 [=====] - 0s 285ms/step
 5688it [43:44, 2.25it/s]
 1/1 [=====] - 0s 381ms/step
 5689it [43:45, 2.15it/s]
 1/1 [=====] - 0s 433ms/step
 5690it [43:45, 2.02it/s]
 1/1 [=====] - 0s 325ms/step
 5691it [43:46, 2.04it/s]
 1/1 [=====] - 0s 346ms/step
 5692it [43:46, 2.02it/s]
 1/1 [=====] - 0s 316ms/step
 5693it [43:47, 2.07it/s]
 1/1 [=====] - 0s 357ms/step
 5694it [43:47, 1.98it/s]
 1/1 [=====] - 0s 353ms/step
 5695it [43:48, 1.99it/s]
 1/1 [=====] - 0s 363ms/step
 5696it [43:48, 1.93it/s]
 1/1 [=====] - 0s 352ms/step
 5697it [43:49, 1.96it/s]
 1/1 [=====] - 0s 361ms/step

5698it [43:49, 1.97it/s]
 1/1 [=====] - 0s 288ms/step
 5699it [43:50, 2.09it/s]
 1/1 [=====] - 0s 368ms/step
 5700it [43:50, 2.09it/s]
 1/1 [=====] - 0s 349ms/step
 5701it [43:51, 2.08it/s]
 1/1 [=====] - 0s 307ms/step
 5702it [43:51, 2.07it/s]
 1/1 [=====] - 0s 353ms/step
 5703it [43:52, 2.08it/s]
 1/1 [=====] - 0s 300ms/step
 5704it [43:52, 2.13it/s]
 1/1 [=====] - 0s 415ms/step
 5705it [43:53, 2.07it/s]
 1/1 [=====] - 0s 354ms/step
 5706it [43:53, 2.08it/s]
 1/1 [=====] - 0s 290ms/step
 5707it [43:54, 2.19it/s]
 1/1 [=====] - 0s 406ms/step
 5708it [43:54, 2.11it/s]
 1/1 [=====] - 0s 324ms/step
 5709it [43:55, 2.18it/s]
 1/1 [=====] - 0s 332ms/step
 5710it [43:55, 2.15it/s]
 1/1 [=====] - 0s 336ms/step
 5711it [43:56, 2.11it/s]
 1/1 [=====] - 0s 342ms/step
 5712it [43:56, 2.15it/s]
 1/1 [=====] - 0s 394ms/step
 5713it [43:56, 2.12it/s]
 1/1 [=====] - 0s 319ms/step

5714it [43:57, 2.16it/s]
 1/1 [=====] - 0s 320ms/step
 5715it [43:57, 2.19it/s]
 1/1 [=====] - 0s 328ms/step
 5716it [43:58, 2.23it/s]
 1/1 [=====] - 0s 305ms/step
 5717it [43:58, 2.20it/s]
 1/1 [=====] - 0s 397ms/step
 5718it [43:59, 2.11it/s]
 1/1 [=====] - 0s 342ms/step
 5719it [43:59, 2.14it/s]
 1/1 [=====] - 0s 319ms/step
 5720it [44:00, 2.19it/s]
 1/1 [=====] - 0s 442ms/step
 5721it [44:00, 2.01it/s]
 1/1 [=====] - 0s 343ms/step
 5722it [44:01, 2.00it/s]
 1/1 [=====] - 0s 338ms/step
 5723it [44:01, 2.07it/s]
 1/1 [=====] - 0s 387ms/step
 5724it [44:02, 2.07it/s]
 1/1 [=====] - 0s 315ms/step
 5725it [44:02, 2.11it/s]
 1/1 [=====] - 0s 335ms/step
 5726it [44:03, 2.16it/s]
 1/1 [=====] - 0s 321ms/step
 5727it [44:03, 2.15it/s]
 1/1 [=====] - 0s 338ms/step
 5728it [44:03, 2.18it/s]
 1/1 [=====] - 0s 399ms/step
 5729it [44:04, 2.09it/s]
 1/1 [=====] - 0s 333ms/step

5730it [44:04, 2.12it/s]
 1/1 [=====] - 0s 335ms/step
 5731it [44:05, 2.15it/s]
 1/1 [=====] - 0s 412ms/step
 5732it [44:05, 2.04it/s]
 1/1 [=====] - 0s 279ms/step
 5733it [44:06, 2.17it/s]
 1/1 [=====] - 0s 325ms/step
 5734it [44:06, 2.15it/s]
 1/1 [=====] - 0s 411ms/step
 5735it [44:07, 2.06it/s]
 1/1 [=====] - 0s 285ms/step
 5736it [44:07, 2.18it/s]
 1/1 [=====] - 0s 341ms/step
 5737it [44:08, 2.16it/s]
 1/1 [=====] - 0s 314ms/step
 5738it [44:08, 2.20it/s]
 1/1 [=====] - 0s 419ms/step
 5739it [44:09, 2.09it/s]
 1/1 [=====] - 0s 343ms/step
 5740it [44:09, 2.13it/s]
 1/1 [=====] - 0s 291ms/step
 5741it [44:10, 2.21it/s]
 1/1 [=====] - 0s 414ms/step
 5742it [44:10, 2.11it/s]
 1/1 [=====] - 0s 286ms/step
 5743it [44:10, 2.22it/s]
 1/1 [=====] - 0s 330ms/step
 5744it [44:11, 2.24it/s]
 1/1 [=====] - 0s 388ms/step
 5745it [44:11, 2.15it/s]
 1/1 [=====] - 0s 302ms/step

5746it [44:12, 2.16it/s]
 1/1 [=====] - 0s 331ms/step
 5747it [44:12, 2.18it/s]
 1/1 [=====] - 0s 318ms/step
 5748it [44:13, 2.24it/s]
 1/1 [=====] - 0s 392ms/step
 5749it [44:13, 2.17it/s]
 1/1 [=====] - 0s 330ms/step
 5750it [44:14, 2.19it/s]
 1/1 [=====] - 0s 388ms/step
 5751it [44:14, 2.12it/s]
 1/1 [=====] - 0s 296ms/step
 5752it [44:15, 2.18it/s]
 1/1 [=====] - 0s 420ms/step
 5753it [44:15, 2.09it/s]
 1/1 [=====] - 0s 306ms/step
 5754it [44:16, 2.15it/s]
 1/1 [=====] - 0s 416ms/step
 5755it [44:16, 2.06it/s]
 1/1 [=====] - 0s 361ms/step
 5756it [44:17, 2.06it/s]
 1/1 [=====] - 0s 293ms/step
 5757it [44:17, 2.14it/s]
 1/1 [=====] - 0s 341ms/step
 5758it [44:18, 2.13it/s]
 1/1 [=====] - 0s 317ms/step
 5759it [44:18, 2.19it/s]
 1/1 [=====] - 0s 329ms/step
 5760it [44:18, 2.10it/s]
 1/1 [=====] - 0s 335ms/step
 5761it [44:19, 2.15it/s]
 1/1 [=====] - 0s 308ms/step

5762it [44:19, 2.23it/s]
 1/1 [=====] - 0s 356ms/step
 5763it [44:20, 2.11it/s]
 1/1 [=====] - 0s 340ms/step
 5764it [44:20, 2.13it/s]
 1/1 [=====] - 0s 315ms/step
 5765it [44:21, 2.19it/s]
 1/1 [=====] - 0s 377ms/step
 5766it [44:21, 2.13it/s]
 1/1 [=====] - 0s 329ms/step
 5767it [44:22, 2.16it/s]
 1/1 [=====] - 0s 408ms/step
 5768it [44:22, 2.06it/s]
 1/1 [=====] - 0s 282ms/step
 5769it [44:23, 2.17it/s]
 1/1 [=====] - 0s 403ms/step
 5770it [44:23, 2.03it/s]
 1/1 [=====] - 0s 334ms/step
 5771it [44:24, 2.10it/s]
 1/1 [=====] - 0s 294ms/step
 5772it [44:24, 2.11it/s]
 1/1 [=====] - 0s 350ms/step
 5773it [44:25, 2.13it/s]
 1/1 [=====] - 0s 301ms/step
 5774it [44:25, 2.22it/s]
 1/1 [=====] - 0s 397ms/step
 5775it [44:25, 2.13it/s]
 1/1 [=====] - 0s 335ms/step
 5776it [44:26, 2.18it/s]
 1/1 [=====] - 0s 300ms/step
 5777it [44:26, 2.17it/s]
 1/1 [=====] - 0s 333ms/step

5778it [44:27, 2.19it/s]
 1/1 [=====] - 0s 296ms/step
 5779it [44:27, 2.26it/s]
 1/1 [=====] - 0s 406ms/step
 5780it [44:28, 2.16it/s]
 1/1 [=====] - 0s 351ms/step
 5781it [44:28, 2.15it/s]
 1/1 [=====] - 0s 302ms/step
 5782it [44:29, 2.21it/s]
 1/1 [=====] - 0s 342ms/step
 5783it [44:29, 2.13it/s]
 1/1 [=====] - 0s 332ms/step
 5784it [44:30, 2.16it/s]
 1/1 [=====] - 0s 337ms/step
 5785it [44:30, 2.20it/s]
 1/1 [=====] - 0s 404ms/step
 5786it [44:31, 2.07it/s]
 1/1 [=====] - 0s 356ms/step
 5787it [44:31, 2.07it/s]
 1/1 [=====] - 0s 298ms/step
 5788it [44:31, 2.17it/s]
 1/1 [=====] - 0s 382ms/step
 5789it [44:32, 2.10it/s]
 1/1 [=====] - 0s 343ms/step
 5790it [44:32, 2.13it/s]
 1/1 [=====] - 0s 298ms/step
 5791it [44:33, 2.21it/s]
 1/1 [=====] - 0s 341ms/step
 5792it [44:33, 2.20it/s]
 1/1 [=====] - 0s 322ms/step
 5793it [44:34, 2.25it/s]
 1/1 [=====] - 0s 332ms/step

5794it [44:34, 2.17it/s]
 1/1 [=====] - 0s 336ms/step
 5795it [44:35, 2.19it/s]
 1/1 [=====] - 0s 392ms/step
 5796it [44:35, 2.11it/s]
 1/1 [=====] - 0s 313ms/step
 5797it [44:36, 2.20it/s]
 1/1 [=====] - 0s 340ms/step
 5798it [44:36, 2.21it/s]
 1/1 [=====] - 0s 394ms/step
 5799it [44:37, 2.13it/s]
 1/1 [=====] - 0s 305ms/step
 5800it [44:37, 2.20it/s]
 1/1 [=====] - 0s 341ms/step
 5801it [44:37, 2.21it/s]
 1/1 [=====] - 0s 444ms/step
 5802it [44:38, 2.07it/s]
 1/1 [=====] - 0s 312ms/step
 5803it [44:38, 2.11it/s]
 1/1 [=====] - 0s 299ms/step
 5804it [44:39, 2.20it/s]
 1/1 [=====] - 0s 397ms/step
 5805it [44:39, 2.13it/s]
 1/1 [=====] - 0s 320ms/step
 5806it [44:40, 2.13it/s]
 1/1 [=====] - 0s 416ms/step
 5807it [44:40, 2.06it/s]
 1/1 [=====] - 0s 323ms/step
 5808it [44:41, 2.11it/s]
 1/1 [=====] - 0s 418ms/step
 5809it [44:41, 2.03it/s]
 1/1 [=====] - 0s 319ms/step

5810it [44:42, 2.09it/s]
 1/1 [=====] - 0s 337ms/step
 5811it [44:42, 2.04it/s]
 1/1 [=====] - 0s 328ms/step
 5812it [44:43, 2.10it/s]
 1/1 [=====] - 0s 333ms/step
 5813it [44:43, 2.16it/s]
 1/1 [=====] - 0s 321ms/step
 5814it [44:44, 2.13it/s]
 1/1 [=====] - 0s 335ms/step
 5815it [44:44, 2.16it/s]
 1/1 [=====] - 0s 422ms/step
 5816it [44:45, 2.06it/s]
 1/1 [=====] - 0s 351ms/step
 5817it [44:45, 2.10it/s]
 1/1 [=====] - 0s 303ms/step
 5818it [44:46, 2.04it/s]
 1/1 [=====] - 0s 330ms/step
 5819it [44:46, 2.07it/s]
 1/1 [=====] - 0s 393ms/step
 5820it [44:47, 2.00it/s]
 1/1 [=====] - 0s 319ms/step
 5821it [44:47, 2.11it/s]
 1/1 [=====] - 0s 345ms/step
 5822it [44:48, 2.09it/s]
 1/1 [=====] - 0s 443ms/step
 5823it [44:48, 1.95it/s]
 1/1 [=====] - 0s 310ms/step
 5824it [44:49, 2.02it/s]
 1/1 [=====] - 0s 344ms/step
 5825it [44:49, 2.03it/s]
 1/1 [=====] - 0s 352ms/step

5826it [44:50, 2.00it/s]
 1/1 [=====] - 0s 330ms/step
 5827it [44:50, 1.95it/s]
 1/1 [=====] - 0s 344ms/step
 5828it [44:51, 2.00it/s]
 1/1 [=====] - 0s 295ms/step
 5829it [44:51, 2.11it/s]
 1/1 [=====] - 0s 395ms/step
 5830it [44:52, 2.02it/s]
 1/1 [=====] - 0s 332ms/step
 5831it [44:52, 2.08it/s]
 1/1 [=====] - 0s 329ms/step
 5832it [44:52, 2.13it/s]
 1/1 [=====] - 0s 405ms/step
 5833it [44:53, 2.04it/s]
 1/1 [=====] - 0s 289ms/step
 5834it [44:53, 2.15it/s]
 1/1 [=====] - 0s 351ms/step
 5835it [44:54, 2.16it/s]
 1/1 [=====] - 0s 348ms/step
 5836it [44:54, 2.15it/s]
 1/1 [=====] - 0s 337ms/step
 5837it [44:55, 2.11it/s]
 1/1 [=====] - 0s 370ms/step
 5838it [44:55, 2.11it/s]
 1/1 [=====] - 0s 305ms/step
 5839it [44:56, 2.20it/s]
 1/1 [=====] - 0s 430ms/step
 5840it [44:56, 2.07it/s]
 1/1 [=====] - 0s 327ms/step
 5841it [44:57, 2.10it/s]
 1/1 [=====] - 0s 343ms/step

5842it [44:57, 2.10it/s]
 1/1 [=====] - 0s 399ms/step
 5843it [44:58, 2.04it/s]
 1/1 [=====] - 0s 319ms/step
 5844it [44:58, 2.08it/s]
 1/1 [=====] - 0s 328ms/step
 5845it [44:59, 2.10it/s]
 1/1 [=====] - 0s 322ms/step
 5846it [44:59, 2.11it/s]
 1/1 [=====] - 0s 354ms/step
 5847it [45:00, 2.10it/s]
 1/1 [=====] - 0s 329ms/step
 5848it [45:00, 2.12it/s]
 1/1 [=====] - 0s 339ms/step
 5849it [45:00, 2.17it/s]
 1/1 [=====] - 0s 321ms/step
 5850it [45:01, 2.08it/s]
 1/1 [=====] - 0s 347ms/step
 5851it [45:01, 2.12it/s]
 1/1 [=====] - 0s 350ms/step
 5852it [45:02, 2.06it/s]
 1/1 [=====] - 0s 303ms/step
 5853it [45:02, 2.12it/s]
 1/1 [=====] - 0s 354ms/step
 5854it [45:03, 2.10it/s]
 1/1 [=====] - 0s 283ms/step
 5855it [45:03, 2.22it/s]
 1/1 [=====] - 0s 365ms/step
 5856it [45:04, 2.20it/s]
 1/1 [=====] - 0s 342ms/step
 5857it [45:04, 2.14it/s]
 1/1 [=====] - 0s 320ms/step

5858it [45:05, 2.16it/s]
 1/1 [=====] - 0s 382ms/step
 5859it [45:05, 2.13it/s]
 1/1 [=====] - 0s 316ms/step
 5860it [45:06, 2.18it/s]
 1/1 [=====] - 0s 415ms/step
 5861it [45:06, 2.06it/s]
 1/1 [=====] - 0s 337ms/step
 5862it [45:07, 2.10it/s]
 1/1 [=====] - 0s 317ms/step
 5863it [45:07, 2.15it/s]
 1/1 [=====] - 0s 339ms/step
 5864it [45:08, 2.17it/s]
 1/1 [=====] - 0s 292ms/step
 5865it [45:08, 2.26it/s]
 1/1 [=====] - 0s 430ms/step
 5866it [45:08, 2.05it/s]
 1/1 [=====] - 0s 341ms/step
 5867it [45:09, 2.11it/s]
 1/1 [=====] - 0s 296ms/step
 5868it [45:09, 2.19it/s]
 1/1 [=====] - 0s 355ms/step
 5869it [45:10, 2.17it/s]
 1/1 [=====] - 0s 299ms/step
 5870it [45:10, 2.23it/s]
 1/1 [=====] - 0s 407ms/step
 5871it [45:11, 2.13it/s]
 1/1 [=====] - 0s 336ms/step
 5872it [45:11, 2.16it/s]
 1/1 [=====] - 0s 312ms/step
 5873it [45:12, 2.22it/s]
 1/1 [=====] - 0s 409ms/step

5874it [45:12, 2.10it/s]
 1/1 [=====] - 0s 281ms/step
 5875it [45:13, 2.23it/s]
 1/1 [=====] - 0s 333ms/step
 5876it [45:13, 2.23it/s]
 1/1 [=====] - 0s 388ms/step
 5877it [45:14, 2.13it/s]
 1/1 [=====] - 0s 291ms/step
 5878it [45:14, 2.14it/s]
 1/1 [=====] - 0s 331ms/step
 5879it [45:14, 2.15it/s]
 1/1 [=====] - 0s 303ms/step
 5880it [45:15, 2.24it/s]
 1/1 [=====] - 0s 399ms/step
 5881it [45:15, 2.15it/s]
 1/1 [=====] - 0s 345ms/step
 5882it [45:16, 2.16it/s]
 1/1 [=====] - 0s 303ms/step
 5883it [45:16, 2.22it/s]
 1/1 [=====] - 0s 319ms/step
 5884it [45:17, 2.17it/s]
 1/1 [=====] - 0s 332ms/step
 5885it [45:17, 2.16it/s]
 1/1 [=====] - 0s 324ms/step
 5886it [45:18, 2.20it/s]
 1/1 [=====] - 0s 364ms/step
 5887it [45:18, 2.17it/s]
 1/1 [=====] - 0s 288ms/step
 5888it [45:19, 2.23it/s]
 1/1 [=====] - 0s 328ms/step
 5889it [45:19, 2.24it/s]
 1/1 [=====] - 0s 332ms/step

5890it [45:19, 2.12it/s]
 1/1 [=====] - 0s 332ms/step
 5891it [45:20, 2.16it/s]
 1/1 [=====] - 0s 402ms/step
 5892it [45:20, 2.10it/s]
 1/1 [=====] - 0s 306ms/step
 5893it [45:21, 2.18it/s]
 1/1 [=====] - 0s 394ms/step
 5894it [45:21, 2.11it/s]
 1/1 [=====] - 0s 350ms/step
 5895it [45:22, 2.11it/s]
 1/1 [=====] - 0s 297ms/step
 5896it [45:22, 2.16it/s]
 1/1 [=====] - 0s 413ms/step
 5897it [45:23, 2.03it/s]
 1/1 [=====] - 0s 316ms/step
 5898it [45:23, 2.10it/s]
 1/1 [=====] - 0s 341ms/step
 5899it [45:24, 2.10it/s]
 1/1 [=====] - 0s 434ms/step
 5900it [45:24, 2.01it/s]
 1/1 [=====] - 0s 278ms/step
 5901it [45:25, 2.17it/s]
 1/1 [=====] - 0s 352ms/step
 5902it [45:25, 2.12it/s]
 1/1 [=====] - 0s 392ms/step
 5903it [45:26, 2.05it/s]
 1/1 [=====] - 0s 292ms/step
 5904it [45:26, 2.16it/s]
 1/1 [=====] - 0s 346ms/step
 5905it [45:27, 2.16it/s]
 1/1 [=====] - 0s 327ms/step

5906it [45:27, 2.20it/s]
 1/1 [=====] - 0s 402ms/step
 5907it [45:28, 2.10it/s]
 1/1 [=====] - 0s 348ms/step
 5908it [45:28, 2.10it/s]
 1/1 [=====] - 0s 322ms/step
 5909it [45:28, 2.17it/s]
 1/1 [=====] - 0s 325ms/step
 5910it [45:29, 2.19it/s]
 1/1 [=====] - 0s 348ms/step
 5911it [45:29, 2.18it/s]
 1/1 [=====] - 0s 315ms/step
 5912it [45:30, 2.25it/s]
 1/1 [=====] - 0s 424ms/step
 5913it [45:30, 2.10it/s]
 1/1 [=====] - 0s 359ms/step
 5914it [45:31, 2.04it/s]
 1/1 [=====] - 0s 306ms/step
 5915it [45:31, 2.13it/s]
 1/1 [=====] - 0s 383ms/step
 5916it [45:32, 2.08it/s]
 1/1 [=====] - 0s 359ms/step
 5917it [45:32, 2.08it/s]
 1/1 [=====] - 0s 304ms/step
 5918it [45:33, 2.14it/s]
 1/1 [=====] - 0s 351ms/step
 5919it [45:33, 2.14it/s]
 1/1 [=====] - 0s 294ms/step
 5920it [45:34, 2.26it/s]
 1/1 [=====] - 0s 384ms/step
 5921it [45:34, 2.17it/s]
 1/1 [=====] - 0s 344ms/step

5922it [45:34, 2.16it/s]
 1/1 [=====] - 0s 339ms/step
 5923it [45:35, 2.14it/s]
 1/1 [=====] - 0s 361ms/step
 5924it [45:36, 2.02it/s]
 1/1 [=====] - 0s 324ms/step
 5925it [45:36, 2.11it/s]
 1/1 [=====] - 0s 291ms/step
 5926it [45:36, 2.14it/s]
 1/1 [=====] - 0s 365ms/step
 5927it [45:37, 2.12it/s]
 1/1 [=====] - 0s 331ms/step
 5928it [45:37, 2.03it/s]
 1/1 [=====] - 0s 372ms/step
 5929it [45:38, 2.00it/s]
 1/1 [=====] - 0s 357ms/step
 5930it [45:38, 2.05it/s]
 1/1 [=====] - 0s 322ms/step
 5931it [45:39, 1.96it/s]
 1/1 [=====] - 0s 336ms/step
 5932it [45:39, 1.99it/s]
 1/1 [=====] - 0s 367ms/step
 5933it [45:40, 1.97it/s]
 1/1 [=====] - 0s 402ms/step
 5934it [45:41, 1.93it/s]
 1/1 [=====] - 0s 333ms/step
 5935it [45:41, 1.91it/s]
 1/1 [=====] - 0s 344ms/step
 5936it [45:42, 1.94it/s]
 1/1 [=====] - 0s 425ms/step
 5937it [45:42, 1.91it/s]
 1/1 [=====] - 0s 309ms/step

5938it [45:43, 2.01it/s]
 1/1 [=====] - 0s 345ms/step
 5939it [45:43, 2.03it/s]
 1/1 [=====] - 0s 336ms/step
 5940it [45:43, 2.08it/s]
 1/1 [=====] - 0s 320ms/step
 5941it [45:44, 2.14it/s]
 1/1 [=====] - 0s 327ms/step
 5942it [45:44, 2.18it/s]
 1/1 [=====] - 0s 388ms/step
 5943it [45:45, 2.12it/s]
 1/1 [=====] - 0s 314ms/step
 5944it [45:45, 2.13it/s]
 1/1 [=====] - 0s 342ms/step
 5945it [45:46, 2.09it/s]
 1/1 [=====] - 0s 341ms/step
 5946it [45:46, 2.07it/s]
 1/1 [=====] - 0s 355ms/step
 5947it [45:47, 2.03it/s]
 1/1 [=====] - 0s 382ms/step
 5948it [45:47, 1.97it/s]
 1/1 [=====] - 0s 312ms/step
 5949it [45:48, 2.00it/s]
 1/1 [=====] - 0s 352ms/step
 5950it [45:48, 1.95it/s]
 1/1 [=====] - 0s 329ms/step
 5951it [45:49, 1.89it/s]
 1/1 [=====] - 0s 294ms/step
 5952it [45:49, 2.05it/s]
 1/1 [=====] - 0s 386ms/step
 5953it [45:50, 2.03it/s]
 1/1 [=====] - 0s 315ms/step

5954it [45:50, 2.10it/s]
 1/1 [=====] - 0s 397ms/step
 5955it [45:51, 2.02it/s]
 1/1 [=====] - 0s 339ms/step
 5956it [45:51, 2.00it/s]
 1/1 [=====] - 0s 339ms/step
 5957it [45:52, 2.02it/s]
 1/1 [=====] - 0s 347ms/step
 5958it [45:52, 2.01it/s]
 1/1 [=====] - 0s 315ms/step
 5959it [45:53, 2.04it/s]
 1/1 [=====] - 0s 341ms/step
 5960it [45:53, 2.04it/s]
 1/1 [=====] - 0s 353ms/step
 5961it [45:54, 2.03it/s]
 1/1 [=====] - 0s 430ms/step
 5962it [45:54, 1.88it/s]
 1/1 [=====] - 0s 335ms/step
 5963it [45:55, 1.94it/s]
 1/1 [=====] - 0s 475ms/step
 5964it [45:55, 1.82it/s]
 1/1 [=====] - 0s 334ms/step
 5965it [45:56, 1.88it/s]
 1/1 [=====] - 0s 302ms/step
 5966it [45:56, 2.02it/s]
 1/1 [=====] - 0s 340ms/step
 5967it [45:57, 2.04it/s]
 1/1 [=====] - 0s 316ms/step
 5968it [45:57, 2.12it/s]
 1/1 [=====] - 0s 333ms/step
 5969it [45:58, 2.11it/s]
 1/1 [=====] - 0s 410ms/step

5970it [45:58, 1.99it/s]
 1/1 [=====] - 0s 335ms/step
 5971it [45:59, 2.00it/s]
 1/1 [=====] - 0s 386ms/step
 5972it [45:59, 1.95it/s]
 1/1 [=====] - 0s 392ms/step
 5973it [46:00, 1.89it/s]
 1/1 [=====] - 0s 321ms/step
 5974it [46:00, 1.97it/s]
 1/1 [=====] - 0s 344ms/step
 5975it [46:01, 2.04it/s]
 1/1 [=====] - 0s 352ms/step
 5976it [46:01, 2.01it/s]
 1/1 [=====] - 0s 317ms/step
 5977it [46:02, 2.11it/s]
 1/1 [=====] - 0s 350ms/step
 5978it [46:02, 2.14it/s]
 1/1 [=====] - 0s 387ms/step
 5979it [46:03, 2.09it/s]
 1/1 [=====] - 0s 369ms/step
 5980it [46:03, 2.07it/s]
 1/1 [=====] - 0s 304ms/step
 5981it [46:04, 2.09it/s]
 1/1 [=====] - 0s 303ms/step
 5982it [46:04, 2.19it/s]
 1/1 [=====] - 0s 313ms/step
 5983it [46:05, 2.24it/s]
 1/1 [=====] - 0s 361ms/step
 5984it [46:05, 2.21it/s]
 1/1 [=====] - 0s 309ms/step
 5985it [46:05, 2.25it/s]
 1/1 [=====] - 0s 395ms/step

5986it [46:06, 2.06it/s]
 1/1 [=====] - 0s 400ms/step
 5987it [46:07, 1.98it/s]
 1/1 [=====] - 0s 377ms/step
 5988it [46:07, 1.90it/s]
 1/1 [=====] - 0s 374ms/step
 5989it [46:08, 1.90it/s]
 1/1 [=====] - 0s 345ms/step
 5990it [46:08, 1.93it/s]
 1/1 [=====] - 0s 291ms/step
 5991it [46:09, 2.06it/s]
 1/1 [=====] - 0s 335ms/step
 5992it [46:09, 2.12it/s]
 1/1 [=====] - 0s 346ms/step
 5993it [46:09, 2.13it/s]
 1/1 [=====] - 0s 356ms/step
 5994it [46:10, 2.08it/s]
 1/1 [=====] - 0s 345ms/step
 5995it [46:10, 2.06it/s]
 1/1 [=====] - 0s 332ms/step
 5996it [46:11, 2.06it/s]
 1/1 [=====] - 0s 339ms/step
 5997it [46:11, 2.04it/s]
 1/1 [=====] - 0s 330ms/step
 5998it [46:12, 1.93it/s]
 1/1 [=====] - 0s 332ms/step
 5999it [46:13, 1.96it/s]
 1/1 [=====] - 0s 286ms/step
 6000it [46:13, 2.11it/s]
 1/1 [=====] - 0s 328ms/step
 6001it [46:13, 2.16it/s]
 1/1 [=====] - 0s 344ms/step

6002it [46:14, 2.12it/s]
 1/1 [=====] - 0s 335ms/step
 6003it [46:14, 2.09it/s]
 1/1 [=====] - 0s 395ms/step
 6004it [46:15, 1.97it/s]
 1/1 [=====] - 0s 343ms/step
 6005it [46:15, 1.97it/s]
 1/1 [=====] - 0s 319ms/step
 6006it [46:16, 2.01it/s]
 1/1 [=====] - 0s 339ms/step
 6007it [46:16, 2.03it/s]
 1/1 [=====] - 0s 345ms/step
 6008it [46:17, 2.03it/s]
 1/1 [=====] - 0s 292ms/step
 6009it [46:17, 2.14it/s]
 1/1 [=====] - 0s 322ms/step
 6010it [46:18, 2.17it/s]
 1/1 [=====] - 0s 342ms/step
 6011it [46:18, 2.16it/s]
 1/1 [=====] - 0s 310ms/step
 6012it [46:19, 2.10it/s]
 1/1 [=====] - 0s 322ms/step
 6013it [46:19, 2.16it/s]
 1/1 [=====] - 0s 346ms/step
 6014it [46:20, 2.12it/s]
 1/1 [=====] - 0s 375ms/step
 6015it [46:20, 2.05it/s]
 1/1 [=====] - 0s 320ms/step
 6016it [46:21, 2.08it/s]
 1/1 [=====] - 0s 348ms/step
 6017it [46:21, 2.06it/s]
 1/1 [=====] - 0s 354ms/step

6018it [46:22, 2.03it/s]
 1/1 [=====] - 0s 323ms/step
 6019it [46:22, 2.05it/s]
 1/1 [=====] - 0s 337ms/step
 6020it [46:23, 2.05it/s]
 1/1 [=====] - 0s 416ms/step
 6021it [46:23, 1.96it/s]
 1/1 [=====] - 0s 343ms/step
 6022it [46:24, 1.91it/s]
 1/1 [=====] - 0s 339ms/step
 6023it [46:24, 1.95it/s]
 1/1 [=====] - 0s 413ms/step
 6024it [46:25, 1.89it/s]
 1/1 [=====] - 0s 319ms/step
 6025it [46:25, 1.94it/s]
 1/1 [=====] - 0s 349ms/step
 6026it [46:26, 2.02it/s]
 1/1 [=====] - 0s 348ms/step
 6027it [46:26, 2.06it/s]
 1/1 [=====] - 0s 291ms/step
 6028it [46:27, 2.18it/s]
 1/1 [=====] - 0s 293ms/step
 6029it [46:27, 2.25it/s]
 1/1 [=====] - 0s 347ms/step
 6030it [46:27, 2.24it/s]
 1/1 [=====] - 0s 345ms/step
 6031it [46:28, 2.13it/s]
 1/1 [=====] - 0s 366ms/step
 6032it [46:28, 2.07it/s]
 1/1 [=====] - 0s 422ms/step
 6033it [46:29, 1.95it/s]
 1/1 [=====] - 0s 328ms/step

6034it [46:30, 1.94it/s]
 1/1 [=====] - 0s 358ms/step
 6035it [46:30, 1.94it/s]
 1/1 [=====] - 0s 337ms/step
 6036it [46:31, 1.95it/s]
 1/1 [=====] - 0s 308ms/step
 6037it [46:31, 2.01it/s]
 1/1 [=====] - 0s 317ms/step
 6038it [46:32, 2.05it/s]
 1/1 [=====] - 0s 313ms/step
 6039it [46:32, 2.09it/s]
 1/1 [=====] - 0s 413ms/step
 6040it [46:33, 1.98it/s]
 1/1 [=====] - 0s 320ms/step
 6041it [46:33, 2.03it/s]
 1/1 [=====] - 0s 301ms/step
 6042it [46:33, 2.15it/s]
 1/1 [=====] - 0s 321ms/step
 6043it [46:34, 2.17it/s]
 1/1 [=====] - 0s 402ms/step
 6044it [46:34, 2.07it/s]
 1/1 [=====] - 0s 290ms/step
 6045it [46:35, 2.16it/s]
 1/1 [=====] - 0s 354ms/step
 6046it [46:35, 2.13it/s]
 1/1 [=====] - 0s 331ms/step
 6047it [46:36, 2.14it/s]
 1/1 [=====] - 0s 289ms/step
 6048it [46:36, 2.23it/s]
 1/1 [=====] - 0s 278ms/step
 6049it [46:37, 2.34it/s]
 1/1 [=====] - 0s 330ms/step

6050it [46:37, 2.33it/s]
 1/1 [=====] - 0s 353ms/step
 6051it [46:37, 2.21it/s]
 1/1 [=====] - 0s 374ms/step
 6052it [46:38, 2.10it/s]
 1/1 [=====] - 0s 320ms/step
 6053it [46:38, 2.10it/s]
 1/1 [=====] - 0s 361ms/step
 6054it [46:39, 2.04it/s]
 1/1 [=====] - 0s 338ms/step
 6055it [46:40, 2.02it/s]
 1/1 [=====] - 0s 297ms/step
 6056it [46:40, 2.14it/s]
 1/1 [=====] - 0s 367ms/step
 6057it [46:40, 2.12it/s]
 1/1 [=====] - 0s 351ms/step
 6058it [46:41, 2.08it/s]
 1/1 [=====] - 0s 335ms/step
 6059it [46:41, 2.08it/s]
 1/1 [=====] - 0s 321ms/step
 6060it [46:42, 2.09it/s]
 1/1 [=====] - 0s 348ms/step
 6061it [46:42, 2.07it/s]
 1/1 [=====] - 0s 367ms/step
 6062it [46:43, 2.01it/s]
 1/1 [=====] - 0s 331ms/step
 6063it [46:43, 2.03it/s]
 1/1 [=====] - 0s 317ms/step
 6064it [46:44, 2.06it/s]
 1/1 [=====] - 0s 407ms/step
 6065it [46:44, 1.94it/s]
 1/1 [=====] - 0s 347ms/step

6066it [46:45, 1.92it/s]
 1/1 [=====] - 0s 313ms/step
 6067it [46:45, 1.99it/s]
 1/1 [=====] - 0s 338ms/step
 6068it [46:46, 1.99it/s]
 1/1 [=====] - 0s 401ms/step
 6069it [46:46, 1.97it/s]
 1/1 [=====] - 0s 344ms/step
 6070it [46:47, 1.97it/s]
 1/1 [=====] - 0s 326ms/step
 6071it [46:47, 2.02it/s]
 1/1 [=====] - 0s 381ms/step
 6072it [46:48, 1.97it/s]
 1/1 [=====] - 0s 338ms/step
 6073it [46:48, 1.99it/s]
 1/1 [=====] - 0s 322ms/step
 6074it [46:49, 2.03it/s]
 1/1 [=====] - 0s 301ms/step
 6075it [46:49, 2.08it/s]
 1/1 [=====] - 0s 325ms/step
 6076it [46:50, 2.15it/s]
 1/1 [=====] - 0s 390ms/step
 6077it [46:50, 2.09it/s]
 1/1 [=====] - 0s 310ms/step
 6078it [46:51, 2.16it/s]
 1/1 [=====] - 0s 324ms/step
 6079it [46:51, 2.20it/s]
 1/1 [=====] - 0s 395ms/step
 6080it [46:52, 2.02it/s]
 1/1 [=====] - 0s 319ms/step
 6081it [46:52, 2.05it/s]
 1/1 [=====] - 0s 330ms/step

6082it [46:53, 2.02it/s]
 1/1 [=====] - 0s 316ms/step
 6083it [46:53, 2.06it/s]
 1/1 [=====] - 0s 357ms/step
 6084it [46:54, 2.02it/s]
 1/1 [=====] - 0s 358ms/step
 6085it [46:54, 2.01it/s]
 1/1 [=====] - 0s 352ms/step
 6086it [46:55, 2.01it/s]
 1/1 [=====] - 0s 351ms/step
 6087it [46:55, 1.99it/s]
 1/1 [=====] - 0s 349ms/step
 6088it [46:56, 1.99it/s]
 1/1 [=====] - 0s 333ms/step
 6089it [46:56, 2.01it/s]
 1/1 [=====] - 0s 321ms/step
 6090it [46:57, 2.04it/s]
 1/1 [=====] - 0s 369ms/step
 6091it [46:57, 1.99it/s]
 1/1 [=====] - 0s 284ms/step
 6092it [46:58, 2.13it/s]
 1/1 [=====] - 0s 329ms/step
 6093it [46:58, 2.17it/s]
 1/1 [=====] - 0s 373ms/step
 6094it [46:59, 2.10it/s]
 1/1 [=====] - 0s 362ms/step
 6095it [46:59, 2.10it/s]
 1/1 [=====] - 0s 317ms/step
 6096it [46:59, 2.11it/s]
 1/1 [=====] - 0s 362ms/step
 6097it [47:00, 2.05it/s]
 1/1 [=====] - 0s 367ms/step

6098it [47:01, 2.00it/s]
 1/1 [=====] - 0s 320ms/step
 6099it [47:01, 2.04it/s]
 1/1 [=====] - 0s 340ms/step
 6100it [47:02, 2.03it/s]
 1/1 [=====] - 0s 357ms/step
 6101it [47:02, 2.01it/s]
 1/1 [=====] - 0s 343ms/step
 6102it [47:03, 2.00it/s]
 1/1 [=====] - 0s 315ms/step
 6103it [47:03, 2.05it/s]
 1/1 [=====] - 0s 333ms/step
 6104it [47:03, 2.06it/s]
 1/1 [=====] - 0s 344ms/step
 6105it [47:04, 2.06it/s]
 1/1 [=====] - 0s 352ms/step
 6106it [47:05, 1.98it/s]
 1/1 [=====] - 0s 327ms/step
 6107it [47:05, 2.00it/s]
 1/1 [=====] - 0s 342ms/step
 6108it [47:05, 2.05it/s]
 1/1 [=====] - 0s 348ms/step
 6109it [47:06, 2.03it/s]
 1/1 [=====] - 0s 299ms/step
 6110it [47:06, 2.14it/s]
 1/1 [=====] - 0s 312ms/step
 6111it [47:07, 2.21it/s]
 1/1 [=====] - 0s 338ms/step
 6112it [47:07, 2.22it/s]
 1/1 [=====] - 0s 350ms/step
 6113it [47:08, 2.13it/s]
 1/1 [=====] - 0s 352ms/step

6114it [47:08, 2.06it/s]
 1/1 [=====] - 0s 333ms/step
 6115it [47:09, 2.05it/s]
 1/1 [=====] - 0s 375ms/step
 6116it [47:09, 1.99it/s]
 1/1 [=====] - 0s 350ms/step
 6117it [47:10, 1.96it/s]
 1/1 [=====] - 0s 317ms/step
 6118it [47:10, 1.95it/s]
 1/1 [=====] - 0s 321ms/step
 6119it [47:11, 2.00it/s]
 1/1 [=====] - 0s 362ms/step
 6120it [47:11, 1.97it/s]
 1/1 [=====] - 0s 324ms/step
 6121it [47:12, 1.96it/s]
 1/1 [=====] - 0s 324ms/step
 6122it [47:12, 2.00it/s]
 1/1 [=====] - 0s 337ms/step
 6123it [47:13, 2.01it/s]
 1/1 [=====] - 0s 389ms/step
 6124it [47:13, 1.96it/s]
 1/1 [=====] - 0s 320ms/step
 6125it [47:14, 2.01it/s]
 1/1 [=====] - 0s 317ms/step
 6126it [47:14, 2.09it/s]
 1/1 [=====] - 0s 345ms/step
 6127it [47:15, 2.13it/s]
 1/1 [=====] - 0s 324ms/step
 6128it [47:15, 2.13it/s]
 1/1 [=====] - 0s 311ms/step
 6129it [47:16, 2.18it/s]
 1/1 [=====] - 0s 325ms/step

6130it [47:16, 2.11it/s]
 1/1 [=====] - 0s 370ms/step
 6131it [47:17, 2.05it/s]
 1/1 [=====] - 0s 359ms/step
 6132it [47:17, 2.01it/s]
 1/1 [=====] - 0s 307ms/step
 6133it [47:18, 2.06it/s]
 1/1 [=====] - 0s 347ms/step
 6134it [47:18, 2.04it/s]
 1/1 [=====] - 0s 357ms/step
 6135it [47:19, 2.01it/s]
 1/1 [=====] - 0s 368ms/step
 6136it [47:19, 1.97it/s]
 1/1 [=====] - 0s 334ms/step
 6137it [47:20, 2.00it/s]
 1/1 [=====] - 0s 332ms/step
 6138it [47:20, 2.02it/s]
 1/1 [=====] - 0s 415ms/step
 6139it [47:21, 1.93it/s]
 1/1 [=====] - 0s 340ms/step
 6140it [47:21, 1.92it/s]
 1/1 [=====] - 0s 304ms/step
 6141it [47:22, 2.01it/s]
 1/1 [=====] - 0s 302ms/step
 6142it [47:22, 2.09it/s]
 1/1 [=====] - 0s 354ms/step
 6143it [47:23, 2.09it/s]
 1/1 [=====] - 0s 300ms/step
 6144it [47:23, 2.18it/s]
 1/1 [=====] - 0s 338ms/step
 6145it [47:23, 2.21it/s]
 1/1 [=====] - 0s 395ms/step

6146it [47:24, 2.06it/s]
 1/1 [=====] - 0s 333ms/step
 6147it [47:24, 2.05it/s]
 1/1 [=====] - 0s 340ms/step
 6148it [47:25, 2.04it/s]
 1/1 [=====] - 0s 468ms/step
 6149it [47:26, 1.88it/s]
 1/1 [=====] - 0s 328ms/step
 6150it [47:26, 1.93it/s]
 1/1 [=====] - 0s 314ms/step
 6151it [47:27, 2.00it/s]
 1/1 [=====] - 0s 317ms/step
 6152it [47:27, 2.03it/s]
 1/1 [=====] - 0s 351ms/step
 6153it [47:28, 2.02it/s]
 1/1 [=====] - 0s 426ms/step
 6154it [47:28, 1.88it/s]
 1/1 [=====] - 0s 308ms/step
 6155it [47:29, 1.97it/s]
 1/1 [=====] - 0s 351ms/step
 6156it [47:29, 1.96it/s]
 1/1 [=====] - 0s 374ms/step
 6157it [47:30, 1.91it/s]
 1/1 [=====] - 0s 321ms/step
 6158it [47:30, 1.96it/s]
 1/1 [=====] - 0s 313ms/step
 6159it [47:31, 2.02it/s]
 1/1 [=====] - 0s 292ms/step
 6160it [47:31, 2.12it/s]
 1/1 [=====] - 0s 360ms/step
 6161it [47:32, 2.09it/s]
 1/1 [=====] - 0s 312ms/step

6162it [47:32, 2.13it/s]
 1/1 [=====] - 0s 286ms/step
 6163it [47:32, 2.25it/s]
 1/1 [=====] - 0s 319ms/step
 6164it [47:33, 2.27it/s]
 1/1 [=====] - 0s 339ms/step
 6165it [47:33, 2.21it/s]
 1/1 [=====] - 0s 345ms/step
 6166it [47:34, 2.08it/s]
 1/1 [=====] - 0s 331ms/step
 6167it [47:34, 2.07it/s]
 1/1 [=====] - 0s 380ms/step
 6168it [47:35, 2.01it/s]
 1/1 [=====] - 0s 371ms/step
 6169it [47:35, 1.93it/s]
 1/1 [=====] - 0s 332ms/step
 6170it [47:36, 1.97it/s]
 1/1 [=====] - 0s 322ms/step
 6171it [47:36, 2.01it/s]
 1/1 [=====] - 0s 340ms/step
 6172it [47:37, 2.02it/s]
 1/1 [=====] - 0s 347ms/step
 6173it [47:37, 1.98it/s]
 1/1 [=====] - 0s 333ms/step
 6174it [47:38, 2.00it/s]
 1/1 [=====] - 0s 322ms/step
 6175it [47:38, 2.02it/s]
 1/1 [=====] - 0s 313ms/step
 6176it [47:39, 2.06it/s]
 1/1 [=====] - 0s 423ms/step
 6177it [47:39, 1.94it/s]
 1/1 [=====] - 0s 294ms/step

6178it [47:40, 2.02it/s]
 1/1 [=====] - 0s 307ms/step
 6179it [47:40, 2.13it/s]
 1/1 [=====] - 0s 334ms/step
 6180it [47:41, 2.10it/s]
 1/1 [=====] - 0s 337ms/step
 6181it [47:41, 2.12it/s]
 1/1 [=====] - 0s 317ms/step
 6182it [47:42, 2.18it/s]
 1/1 [=====] - 0s 322ms/step
 6183it [47:42, 2.16it/s]
 1/1 [=====] - 0s 447ms/step
 6184it [47:43, 1.98it/s]
 1/1 [=====] - 0s 376ms/step
 6185it [47:43, 1.93it/s]
 1/1 [=====] - 0s 351ms/step
 6186it [47:44, 1.94it/s]
 1/1 [=====] - 0s 367ms/step
 6187it [47:44, 1.94it/s]
 1/1 [=====] - 0s 321ms/step
 6188it [47:45, 1.96it/s]
 1/1 [=====] - 0s 316ms/step
 6189it [47:45, 2.01it/s]
 1/1 [=====] - 0s 332ms/step
 6190it [47:46, 1.99it/s]
 1/1 [=====] - 0s 355ms/step
 6191it [47:46, 1.98it/s]
 1/1 [=====] - 0s 349ms/step
 6192it [47:47, 1.99it/s]
 1/1 [=====] - 0s 387ms/step
 6193it [47:47, 1.94it/s]
 1/1 [=====] - 0s 348ms/step

6194it [47:48, 1.90it/s]
 1/1 [=====] - 0s 307ms/step
 6195it [47:48, 2.03it/s]
 1/1 [=====] - 0s 324ms/step
 6196it [47:49, 2.11it/s]
 1/1 [=====] - 0s 351ms/step
 6197it [47:49, 2.09it/s]
 1/1 [=====] - 0s 347ms/step
 6198it [47:50, 2.06it/s]
 1/1 [=====] - 0s 370ms/step
 6199it [47:50, 2.01it/s]
 1/1 [=====] - 0s 367ms/step
 6200it [47:51, 1.97it/s]
 1/1 [=====] - 0s 320ms/step
 6201it [47:51, 2.02it/s]
 1/1 [=====] - 0s 338ms/step
 6202it [47:52, 1.99it/s]
 1/1 [=====] - 0s 321ms/step
 6203it [47:52, 2.03it/s]
 1/1 [=====] - 0s 354ms/step
 6204it [47:53, 2.02it/s]
 1/1 [=====] - 0s 367ms/step
 6205it [47:53, 1.98it/s]
 1/1 [=====] - 0s 312ms/step
 6206it [47:54, 2.03it/s]
 1/1 [=====] - 0s 332ms/step
 6207it [47:54, 2.04it/s]
 1/1 [=====] - 0s 354ms/step
 6208it [47:55, 2.01it/s]
 1/1 [=====] - 0s 350ms/step
 6209it [47:55, 1.99it/s]
 1/1 [=====] - 0s 313ms/step

6210it [47:56, 2.03it/s]
 1/1 [=====] - 0s 337ms/step
 6211it [47:56, 2.05it/s]
 1/1 [=====] - 0s 421ms/step
 6212it [47:57, 1.95it/s]
 1/1 [=====] - 0s 316ms/step
 6213it [47:57, 2.05it/s]
 1/1 [=====] - 0s 300ms/step
 6214it [47:58, 2.13it/s]
 1/1 [=====] - 0s 353ms/step
 6215it [47:58, 2.14it/s]
 1/1 [=====] - 0s 320ms/step
 6216it [47:59, 2.10it/s]
 1/1 [=====] - 0s 323ms/step
 6217it [47:59, 2.10it/s]
 1/1 [=====] - 0s 338ms/step
 6218it [48:00, 2.07it/s]
 1/1 [=====] - 0s 363ms/step
 6219it [48:00, 2.03it/s]
 1/1 [=====] - 0s 357ms/step
 6220it [48:01, 2.00it/s]
 1/1 [=====] - 0s 327ms/step
 6221it [48:01, 2.01it/s]
 1/1 [=====] - 0s 359ms/step
 6222it [48:02, 1.94it/s]
 1/1 [=====] - 0s 365ms/step
 6223it [48:02, 1.92it/s]
 1/1 [=====] - 0s 314ms/step
 6224it [48:03, 1.98it/s]
 1/1 [=====] - 0s 322ms/step
 6225it [48:03, 2.01it/s]
 1/1 [=====] - 0s 346ms/step

6226it [48:04, 1.97it/s]
 1/1 [=====] - 0s 356ms/step
 6227it [48:04, 1.97it/s]
 1/1 [=====] - 0s 310ms/step
 6228it [48:05, 2.08it/s]
 1/1 [=====] - 0s 331ms/step
 6229it [48:05, 2.13it/s]
 1/1 [=====] - 0s 367ms/step
 6230it [48:05, 2.10it/s]
 1/1 [=====] - 0s 297ms/step
 6231it [48:06, 2.17it/s]
 1/1 [=====] - 0s 316ms/step
 6232it [48:06, 2.19it/s]
 1/1 [=====] - 0s 381ms/step
 6233it [48:07, 2.09it/s]
 1/1 [=====] - 0s 428ms/step
 6234it [48:07, 1.95it/s]
 1/1 [=====] - 0s 311ms/step
 6235it [48:08, 2.00it/s]
 1/1 [=====] - 0s 324ms/step
 6236it [48:08, 2.03it/s]
 1/1 [=====] - 0s 338ms/step
 6237it [48:09, 2.03it/s]
 1/1 [=====] - 0s 402ms/step
 6238it [48:10, 1.89it/s]
 1/1 [=====] - 0s 324ms/step
 6239it [48:10, 1.92it/s]
 1/1 [=====] - 0s 327ms/step
 6240it [48:11, 1.97it/s]
 1/1 [=====] - 0s 351ms/step
 6241it [48:11, 1.98it/s]
 1/1 [=====] - 0s 349ms/step

6242it [48:12, 1.98it/s]
 1/1 [=====] - 0s 313ms/step
 6243it [48:12, 2.00it/s]
 1/1 [=====] - 0s 304ms/step
 6244it [48:12, 2.09it/s]
 1/1 [=====] - 0s 363ms/step
 6245it [48:13, 2.08it/s]
 1/1 [=====] - 0s 304ms/step
 6246it [48:13, 2.07it/s]
 1/1 [=====] - 0s 295ms/step
 6247it [48:14, 2.18it/s]
 1/1 [=====] - 0s 335ms/step
 6248it [48:14, 2.13it/s]
 1/1 [=====] - 0s 372ms/step
 6249it [48:15, 2.03it/s]
 1/1 [=====] - 0s 326ms/step
 6250it [48:15, 1.98it/s]
 1/1 [=====] - 0s 304ms/step
 6251it [48:16, 2.04it/s]
 1/1 [=====] - 0s 369ms/step
 6252it [48:16, 2.01it/s]
 1/1 [=====] - 0s 356ms/step
 6253it [48:17, 1.98it/s]
 1/1 [=====] - 0s 343ms/step
 6254it [48:17, 1.98it/s]
 1/1 [=====] - 0s 316ms/step
 6255it [48:18, 2.03it/s]
 1/1 [=====] - 0s 371ms/step
 6256it [48:18, 1.99it/s]
 1/1 [=====] - 0s 359ms/step
 6257it [48:19, 1.95it/s]
 1/1 [=====] - 0s 328ms/step

6258it [48:19, 1.98it/s]
 1/1 [=====] - 0s 324ms/step
 6259it [48:20, 1.98it/s]
 1/1 [=====] - 0s 338ms/step
 6260it [48:20, 2.02it/s]
 1/1 [=====] - 0s 330ms/step
 6261it [48:21, 2.06it/s]
 1/1 [=====] - 0s 293ms/step
 6262it [48:21, 2.12it/s]
 1/1 [=====] - 0s 309ms/step
 6263it [48:22, 2.20it/s]
 1/1 [=====] - 0s 410ms/step
 6264it [48:22, 2.07it/s]
 1/1 [=====] - 0s 328ms/step
 6265it [48:23, 2.07it/s]
 1/1 [=====] - 0s 332ms/step
 6266it [48:23, 2.05it/s]
 1/1 [=====] - 0s 354ms/step
 6267it [48:24, 2.02it/s]
 1/1 [=====] - 0s 366ms/step
 6268it [48:24, 1.97it/s]
 1/1 [=====] - 0s 303ms/step
 6269it [48:25, 2.02it/s]
 1/1 [=====] - 0s 336ms/step
 6270it [48:25, 2.03it/s]
 1/1 [=====] - 0s 319ms/step
 6271it [48:26, 2.05it/s]
 1/1 [=====] - 0s 370ms/step
 6272it [48:26, 2.00it/s]
 1/1 [=====] - 0s 336ms/step
 6273it [48:27, 1.99it/s]
 1/1 [=====] - 0s 313ms/step

6274it [48:27, 1.99it/s]
 1/1 [=====] - 0s 365ms/step
 6275it [48:28, 1.97it/s]
 1/1 [=====] - 0s 348ms/step
 6276it [48:28, 1.97it/s]
 1/1 [=====] - 0s 302ms/step
 6277it [48:29, 2.08it/s]
 1/1 [=====] - 0s 300ms/step
 6278it [48:29, 2.18it/s]
 1/1 [=====] - 0s 330ms/step
 6279it [48:30, 2.21it/s]
 1/1 [=====] - 0s 347ms/step
 6280it [48:30, 2.13it/s]
 1/1 [=====] - 0s 341ms/step
 6281it [48:31, 2.12it/s]
 1/1 [=====] - 0s 326ms/step
 6282it [48:31, 2.10it/s]
 1/1 [=====] - 0s 349ms/step
 6283it [48:32, 2.06it/s]
 1/1 [=====] - 0s 325ms/step
 6284it [48:32, 2.03it/s]
 1/1 [=====] - 0s 312ms/step
 6285it [48:32, 2.07it/s]
 1/1 [=====] - 0s 338ms/step
 6286it [48:33, 2.01it/s]
 1/1 [=====] - 0s 323ms/step
 6287it [48:33, 2.04it/s]
 1/1 [=====] - 0s 350ms/step
 6288it [48:34, 2.04it/s]
 1/1 [=====] - 0s 370ms/step
 6289it [48:35, 1.95it/s]
 1/1 [=====] - 0s 326ms/step

6290it [48:35, 1.99it/s]
 1/1 [=====] - 0s 315ms/step
 6291it [48:35, 2.03it/s]
 1/1 [=====] - 0s 355ms/step
 6292it [48:36, 2.01it/s]
 1/1 [=====] - 0s 392ms/step
 6293it [48:37, 1.94it/s]
 1/1 [=====] - 0s 358ms/step
 6294it [48:37, 1.97it/s]
 1/1 [=====] - 0s 325ms/step
 6295it [48:38, 2.03it/s]
 1/1 [=====] - 0s 363ms/step
 6296it [48:38, 2.03it/s]
 1/1 [=====] - 0s 364ms/step
 6297it [48:39, 2.00it/s]
 1/1 [=====] - 0s 309ms/step
 6298it [48:39, 1.99it/s]
 1/1 [=====] - 0s 313ms/step
 6299it [48:40, 2.04it/s]
 1/1 [=====] - 0s 343ms/step
 6300it [48:40, 2.02it/s]
 1/1 [=====] - 0s 343ms/step
 6301it [48:41, 2.01it/s]
 1/1 [=====] - 0s 350ms/step
 6302it [48:41, 1.99it/s]
 1/1 [=====] - 0s 319ms/step
 6303it [48:42, 2.01it/s]
 1/1 [=====] - 0s 345ms/step
 6304it [48:42, 2.02it/s]
 1/1 [=====] - 0s 337ms/step
 6305it [48:42, 2.03it/s]
 1/1 [=====] - 0s 352ms/step

6306it [48:43, 2.01it/s]
 1/1 [=====] - 0s 412ms/step
 6307it [48:44, 1.92it/s]
 1/1 [=====] - 0s 359ms/step
 6308it [48:44, 1.93it/s]
 1/1 [=====] - 0s 283ms/step
 6309it [48:45, 2.05it/s]
 1/1 [=====] - 0s 307ms/step
 6310it [48:45, 2.10it/s]
 1/1 [=====] - 0s 371ms/step
 6311it [48:45, 2.07it/s]
 1/1 [=====] - 0s 336ms/step
 6312it [48:46, 2.09it/s]
 1/1 [=====] - 0s 319ms/step
 6313it [48:46, 2.12it/s]
 1/1 [=====] - 0s 328ms/step
 6314it [48:47, 2.12it/s]
 1/1 [=====] - 0s 323ms/step
 6315it [48:47, 2.11it/s]
 1/1 [=====] - 0s 351ms/step
 6316it [48:48, 2.07it/s]
 1/1 [=====] - 0s 367ms/step
 6317it [48:48, 2.02it/s]
 1/1 [=====] - 0s 337ms/step
 6318it [48:49, 1.99it/s]
 1/1 [=====] - 0s 317ms/step
 6319it [48:49, 2.03it/s]
 1/1 [=====] - 0s 341ms/step
 6320it [48:50, 2.04it/s]
 1/1 [=====] - 0s 327ms/step
 6321it [48:50, 2.04it/s]
 1/1 [=====] - 0s 429ms/step

6322it [48:51, 1.89it/s]
 1/1 [=====] - 0s 356ms/step
 6323it [48:51, 1.91it/s]
 1/1 [=====] - 0s 322ms/step
 6324it [48:52, 1.95it/s]
 1/1 [=====] - 0s 330ms/step
 6325it [48:52, 1.99it/s]
 1/1 [=====] - 0s 313ms/step
 6326it [48:53, 2.09it/s]
 1/1 [=====] - 0s 370ms/step
 6327it [48:53, 2.09it/s]
 1/1 [=====] - 0s 339ms/step
 6328it [48:54, 2.12it/s]
 1/1 [=====] - 0s 360ms/step
 6329it [48:54, 2.09it/s]
 1/1 [=====] - 0s 312ms/step
 6330it [48:55, 2.16it/s]
 1/1 [=====] - 0s 315ms/step
 6331it [48:55, 2.16it/s]
 1/1 [=====] - 0s 309ms/step
 6332it [48:56, 2.16it/s]
 1/1 [=====] - 0s 357ms/step
 6333it [48:56, 2.09it/s]
 1/1 [=====] - 0s 411ms/step
 6334it [48:57, 1.93it/s]
 1/1 [=====] - 0s 387ms/step
 6335it [48:57, 1.89it/s]
 1/1 [=====] - 0s 352ms/step
 6336it [48:58, 1.91it/s]
 1/1 [=====] - 0s 319ms/step
 6337it [48:58, 1.97it/s]
 1/1 [=====] - 0s 358ms/step

6338it [48:59, 1.96it/s]
 1/1 [=====] - 0s 346ms/step
 6339it [48:59, 1.96it/s]
 1/1 [=====] - 0s 391ms/step
 6340it [49:00, 1.92it/s]
 1/1 [=====] - 0s 327ms/step
 6341it [49:00, 1.96it/s]
 1/1 [=====] - 0s 311ms/step
 6342it [49:01, 2.01it/s]
 1/1 [=====] - 0s 330ms/step
 6343it [49:01, 2.01it/s]
 1/1 [=====] - 0s 331ms/step
 6344it [49:02, 2.01it/s]
 1/1 [=====] - 0s 338ms/step
 6345it [49:02, 2.07it/s]
 1/1 [=====] - 0s 439ms/step
 6346it [49:03, 1.93it/s]
 1/1 [=====] - 0s 396ms/step
 6347it [49:03, 1.93it/s]
 1/1 [=====] - 0s 285ms/step
 6348it [49:04, 2.07it/s]
 1/1 [=====] - 0s 315ms/step
 6349it [49:04, 2.13it/s]
 1/1 [=====] - 0s 309ms/step
 6350it [49:05, 2.13it/s]
 1/1 [=====] - 0s 328ms/step
 6351it [49:05, 2.11it/s]
 1/1 [=====] - 0s 337ms/step
 6352it [49:06, 2.08it/s]
 1/1 [=====] - 0s 355ms/step
 6353it [49:06, 2.03it/s]
 1/1 [=====] - 0s 383ms/step

6354it [49:07, 1.93it/s]
 1/1 [=====] - 0s 357ms/step
 6355it [49:07, 1.92it/s]
 1/1 [=====] - 0s 335ms/step
 6356it [49:08, 1.95it/s]
 1/1 [=====] - 0s 326ms/step
 6357it [49:08, 1.99it/s]
 1/1 [=====] - 0s 327ms/step
 6358it [49:09, 1.97it/s]
 1/1 [=====] - 0s 374ms/step
 6359it [49:09, 1.91it/s]
 1/1 [=====] - 0s 361ms/step
 6360it [49:10, 1.89it/s]
 1/1 [=====] - 0s 312ms/step
 6361it [49:10, 1.99it/s]
 1/1 [=====] - 0s 325ms/step
 6362it [49:11, 2.05it/s]
 1/1 [=====] - 0s 347ms/step
 6363it [49:11, 2.07it/s]
 1/1 [=====] - 0s 309ms/step
 6364it [49:12, 2.16it/s]
 1/1 [=====] - 0s 317ms/step
 6365it [49:12, 2.21it/s]
 1/1 [=====] - 0s 316ms/step
 6366it [49:13, 2.18it/s]
 1/1 [=====] - 0s 348ms/step
 6367it [49:13, 2.11it/s]
 1/1 [=====] - 0s 413ms/step
 6368it [49:14, 1.97it/s]
 1/1 [=====] - 0s 335ms/step
 6369it [49:14, 1.98it/s]
 1/1 [=====] - 0s 326ms/step

6370it [49:15, 1.96it/s]
 1/1 [=====] - 0s 319ms/step
 6371it [49:15, 2.01it/s]
 1/1 [=====] - 0s 355ms/step
 6372it [49:16, 2.00it/s]
 1/1 [=====] - 0s 371ms/step
 6373it [49:16, 1.96it/s]
 1/1 [=====] - 0s 382ms/step
 6374it [49:17, 1.89it/s]
 1/1 [=====] - 0s 335ms/step
 6375it [49:17, 1.92it/s]
 1/1 [=====] - 0s 324ms/step
 6376it [49:18, 1.97it/s]
 1/1 [=====] - 0s 308ms/step
 6377it [49:18, 2.09it/s]
 1/1 [=====] - 0s 388ms/step
 6378it [49:19, 1.97it/s]
 1/1 [=====] - 0s 405ms/step
 6379it [49:19, 1.91it/s]
 1/1 [=====] - 0s 336ms/step
 6380it [49:20, 1.93it/s]
 1/1 [=====] - 0s 336ms/step
 6381it [49:20, 1.95it/s]
 1/1 [=====] - 0s 330ms/step
 6382it [49:21, 1.93it/s]
 1/1 [=====] - 0s 327ms/step
 6383it [49:21, 1.98it/s]
 1/1 [=====] - 0s 320ms/step
 6384it [49:22, 2.02it/s]
 1/1 [=====] - 0s 340ms/step
 6385it [49:22, 2.02it/s]
 1/1 [=====] - 0s 350ms/step

6386it [49:23, 2.00it/s]
 1/1 [=====] - 0s 363ms/step
 6387it [49:23, 1.98it/s]
 1/1 [=====] - 0s 364ms/step
 6388it [49:24, 1.95it/s]
 1/1 [=====] - 0s 323ms/step
 6389it [49:24, 1.97it/s]
 1/1 [=====] - 0s 327ms/step
 6390it [49:25, 2.00it/s]
 1/1 [=====] - 0s 316ms/step
 6391it [49:25, 2.04it/s]
 1/1 [=====] - 0s 330ms/step
 6392it [49:26, 2.05it/s]
 1/1 [=====] - 0s 344ms/step
 6393it [49:26, 1.99it/s]
 1/1 [=====] - 0s 371ms/step
 6394it [49:27, 1.95it/s]
 1/1 [=====] - 0s 300ms/step
 6395it [49:27, 2.06it/s]
 1/1 [=====] - 0s 286ms/step
 6396it [49:28, 2.19it/s]
 1/1 [=====] - 0s 329ms/step
 6397it [49:28, 2.21it/s]
 1/1 [=====] - 0s 314ms/step
 6398it [49:29, 2.19it/s]
 1/1 [=====] - 0s 355ms/step
 6399it [49:29, 2.12it/s]
 1/1 [=====] - 0s 334ms/step
 6400it [49:30, 2.10it/s]
 1/1 [=====] - 0s 378ms/step
 6401it [49:30, 2.01it/s]
 1/1 [=====] - 0s 353ms/step

6402it [49:31, 1.93it/s]
1/1 [=====] - 0s 338ms/step
6403it [49:31, 1.96it/s]
1/1 [=====] - 0s 325ms/step
6404it [49:32, 1.99it/s]
1/1 [=====] - 0s 315ms/step
6405it [49:32, 2.03it/s]
1/1 [=====] - 0s 336ms/step
6406it [49:33, 1.99it/s]
1/1 [=====] - 0s 352ms/step
6407it [49:33, 1.98it/s]
1/1 [=====] - 0s 370ms/step
6408it [49:34, 1.94it/s]
1/1 [=====] - 0s 327ms/step
6409it [49:34, 1.97it/s]
1/1 [=====] - 0s 284ms/step
6410it [49:35, 2.11it/s]
1/1 [=====] - 0s 289ms/step
6411it [49:35, 2.23it/s]
1/1 [=====] - 0s 307ms/step
6412it [49:35, 2.27it/s]
1/1 [=====] - 0s 354ms/step
6413it [49:36, 2.23it/s]
1/1 [=====] - 0s 413ms/step
6414it [49:36, 2.10it/s]
1/1 [=====] - 0s 367ms/step
6415it [49:37, 2.03it/s]
1/1 [=====] - 0s 312ms/step
6416it [49:37, 2.05it/s]
1/1 [=====] - 0s 324ms/step
6417it [49:38, 2.07it/s]
1/1 [=====] - 0s 318ms/step

6418it [49:38, 2.05it/s]
 1/1 [=====] - 0s 333ms/step
 6419it [49:39, 2.05it/s]
 1/1 [=====] - 0s 315ms/step
 6420it [49:39, 2.08it/s]
 1/1 [=====] - 0s 301ms/step
 6421it [49:40, 2.12it/s]
 1/1 [=====] - 0s 339ms/step
 6422it [49:40, 2.09it/s]
 1/1 [=====] - 0s 331ms/step
 6423it [49:41, 2.09it/s]
 1/1 [=====] - 0s 330ms/step
 6424it [49:41, 2.08it/s]
 1/1 [=====] - 0s 318ms/step
 6425it [49:42, 2.09it/s]
 1/1 [=====] - 0s 365ms/step
 6426it [49:42, 1.97it/s]
 1/1 [=====] - 0s 379ms/step
 6427it [49:43, 1.87it/s]
 1/1 [=====] - 0s 337ms/step
 6428it [49:43, 1.95it/s]
 1/1 [=====] - 0s 375ms/step
 6429it [49:44, 1.96it/s]
 1/1 [=====] - 0s 304ms/step
 6430it [49:44, 2.04it/s]
 1/1 [=====] - 0s 323ms/step
 6431it [49:45, 2.11it/s]
 1/1 [=====] - 0s 322ms/step
 6432it [49:45, 2.11it/s]
 1/1 [=====] - 0s 380ms/step
 6433it [49:46, 2.03it/s]
 1/1 [=====] - 0s 367ms/step

6434it [49:46, 1.99it/s]
 1/1 [=====] - 0s 363ms/step
 6435it [49:47, 1.95it/s]
 1/1 [=====] - 0s 326ms/step
 6436it [49:47, 1.99it/s]
 1/1 [=====] - 0s 321ms/step
 6437it [49:48, 2.03it/s]
 1/1 [=====] - 0s 335ms/step
 6438it [49:48, 2.03it/s]
 1/1 [=====] - 0s 321ms/step
 6439it [49:49, 2.05it/s]
 1/1 [=====] - 0s 329ms/step
 6440it [49:49, 2.05it/s]
 1/1 [=====] - 0s 315ms/step
 6441it [49:50, 2.08it/s]
 1/1 [=====] - 0s 334ms/step
 6442it [49:50, 2.00it/s]
 1/1 [=====] - 0s 342ms/step
 6443it [49:51, 2.06it/s]
 1/1 [=====] - 0s 406ms/step
 6444it [49:51, 2.01it/s]
 1/1 [=====] - 0s 345ms/step
 6445it [49:52, 2.01it/s]
 1/1 [=====] - 0s 310ms/step
 6446it [49:52, 2.11it/s]
 1/1 [=====] - 0s 321ms/step
 6447it [49:53, 2.13it/s]
 1/1 [=====] - 0s 329ms/step
 6448it [49:53, 2.12it/s]
 1/1 [=====] - 0s 339ms/step
 6449it [49:54, 2.08it/s]
 1/1 [=====] - 0s 342ms/step

```

6450it [49:54, 2.06it/s]
1/1 [=====] - 0s 366ms/step
6451it [49:55, 2.00it/s]
1/1 [=====] - 0s 417ms/step
6452it [49:55, 1.90it/s]
1/1 [=====] - 0s 411ms/step
6453it [49:56, 1.84it/s]
1/1 [=====] - 0s 353ms/step
6454it [49:56, 1.82it/s]
1/1 [=====] - 0s 329ms/step
6455it [49:57, 1.89it/s]
1/1 [=====] - 0s 320ms/step
6456it [49:57, 1.95it/s]
1/1 [=====] - 0s 314ms/step
6457it [49:58, 2.00it/s]
1/1 [=====] - 0s 318ms/step
6458it [49:58, 2.03it/s]
1/1 [=====] - 0s 350ms/step
6459it [49:59, 2.03it/s]
1/1 [=====] - 0s 378ms/step
6460it [49:59, 2.02it/s]
1/1 [=====] - 0s 377ms/step
6461it [50:00, 2.00it/s]
1/1 [=====] - 0s 321ms/step
6462it [50:00, 2.06it/s]
1/1 [=====] - 0s 321ms/step
6463it [50:01, 2.09it/s]
1/1 [=====] - 0s 340ms/step
6464it [50:01, 2.07it/s]
1/1 [=====] - 0s 326ms/step
6465it [50:02, 2.08it/s]
1/1 [=====] - 0s 329ms/step

```


6466it [50:02, 2.03it/s]
 1/1 [=====] - 0s 339ms/step
 6467it [50:03, 2.02it/s]
 1/1 [=====] - 0s 306ms/step
 6468it [50:03, 2.07it/s]
 1/1 [=====] - 0s 330ms/step
 6469it [50:04, 2.07it/s]
 1/1 [=====] - 0s 319ms/step
 6470it [50:04, 2.09it/s]
 1/1 [=====] - 0s 318ms/step
 6471it [50:04, 2.11it/s]
 1/1 [=====] - 0s 323ms/step
 6472it [50:05, 2.11it/s]
 1/1 [=====] - 0s 323ms/step
 6473it [50:05, 2.10it/s]
 1/1 [=====] - 0s 317ms/step
 6474it [50:06, 2.08it/s]
 1/1 [=====] - 0s 384ms/step
 6475it [50:06, 2.02it/s]
 1/1 [=====] - 0s 379ms/step
 6476it [50:07, 2.00it/s]
 1/1 [=====] - 0s 356ms/step
 6477it [50:08, 1.93it/s]
 1/1 [=====] - 0s 402ms/step
 6478it [50:08, 1.88it/s]
 1/1 [=====] - 0s 322ms/step
 6479it [50:09, 1.99it/s]
 1/1 [=====] - 0s 397ms/step
 6480it [50:09, 1.91it/s]
 1/1 [=====] - 0s 328ms/step
 6481it [50:10, 1.94it/s]
 1/1 [=====] - 0s 324ms/step

6482it [50:10, 1.98it/s]
 1/1 [=====] - 1s 568ms/step
 6483it [50:11, 1.75it/s]
 1/1 [=====] - 0s 327ms/step
 6484it [50:11, 1.83it/s]
 1/1 [=====] - 0s 392ms/step
 6485it [50:12, 1.82it/s]
 1/1 [=====] - 0s 389ms/step
 6486it [50:12, 1.80it/s]
 1/1 [=====] - 0s 321ms/step
 6487it [50:13, 1.86it/s]
 1/1 [=====] - 0s 322ms/step
 6488it [50:13, 1.92it/s]
 1/1 [=====] - 0s 305ms/step
 6489it [50:14, 1.99it/s]
 1/1 [=====] - 0s 312ms/step
 6490it [50:14, 1.97it/s]
 1/1 [=====] - 0s 335ms/step
 6491it [50:15, 1.99it/s]
 1/1 [=====] - 0s 303ms/step
 6492it [50:15, 2.10it/s]
 1/1 [=====] - 0s 320ms/step
 6493it [50:16, 2.14it/s]
 1/1 [=====] - 0s 320ms/step
 6494it [50:16, 2.18it/s]
 1/1 [=====] - 0s 317ms/step
 6495it [50:17, 2.21it/s]
 1/1 [=====] - 0s 329ms/step
 6496it [50:17, 2.23it/s]
 1/1 [=====] - 0s 313ms/step
 6497it [50:17, 2.19it/s]
 1/1 [=====] - 0s 295ms/step

6498it [50:18, 2.21it/s]
 1/1 [=====] - 0s 327ms/step
 6499it [50:18, 2.17it/s]
 1/1 [=====] - 0s 321ms/step
 6500it [50:19, 2.14it/s]
 1/1 [=====] - 0s 306ms/step
 6501it [50:19, 2.14it/s]
 1/1 [=====] - 0s 320ms/step
 6502it [50:20, 2.09it/s]
 1/1 [=====] - 0s 342ms/step
 6503it [50:20, 2.07it/s]
 1/1 [=====] - 0s 315ms/step
 6504it [50:21, 2.09it/s]
 1/1 [=====] - 0s 373ms/step
 6505it [50:21, 1.95it/s]
 1/1 [=====] - 0s 361ms/step
 6506it [50:22, 1.93it/s]
 1/1 [=====] - 0s 370ms/step
 6507it [50:23, 1.90it/s]
 1/1 [=====] - 0s 351ms/step
 6508it [50:23, 1.93it/s]
 1/1 [=====] - 0s 302ms/step
 6509it [50:23, 2.02it/s]
 1/1 [=====] - 0s 307ms/step
 6510it [50:24, 2.12it/s]
 1/1 [=====] - 0s 300ms/step
 6511it [50:24, 2.20it/s]
 1/1 [=====] - 0s 406ms/step
 6512it [50:25, 2.04it/s]
 1/1 [=====] - 0s 336ms/step
 6513it [50:25, 2.03it/s]
 1/1 [=====] - 0s 440ms/step

6514it [50:26, 1.87it/s]
 1/1 [=====] - 0s 370ms/step
 6515it [50:27, 1.88it/s]
 1/1 [=====] - 0s 336ms/step
 6516it [50:27, 1.92it/s]
 1/1 [=====] - 0s 326ms/step
 6517it [50:27, 1.96it/s]
 1/1 [=====] - 0s 330ms/step
 6518it [50:28, 2.00it/s]
 1/1 [=====] - 0s 324ms/step
 6519it [50:28, 2.01it/s]
 1/1 [=====] - 0s 310ms/step
 6520it [50:29, 2.06it/s]
 1/1 [=====] - 0s 335ms/step
 6521it [50:29, 2.07it/s]
 1/1 [=====] - 0s 330ms/step
 6522it [50:30, 2.07it/s]
 1/1 [=====] - 0s 341ms/step
 6523it [50:30, 2.05it/s]
 1/1 [=====] - 0s 318ms/step
 6524it [50:31, 2.07it/s]
 1/1 [=====] - 0s 290ms/step
 6525it [50:31, 2.19it/s]
 1/1 [=====] - 0s 360ms/step
 6526it [50:32, 2.15it/s]
 1/1 [=====] - 0s 336ms/step
 6527it [50:32, 2.15it/s]
 1/1 [=====] - 0s 360ms/step
 6528it [50:33, 2.12it/s]
 1/1 [=====] - 0s 346ms/step
 6529it [50:33, 2.10it/s]
 1/1 [=====] - 0s 306ms/step

```

6530it [50:34, 2.12it/s]
1/1 [=====] - 0s 306ms/step
6531it [50:34, 2.14it/s]
1/1 [=====] - 0s 339ms/step
6532it [50:35, 2.10it/s]
1/1 [=====] - 0s 356ms/step
6533it [50:35, 2.06it/s]
1/1 [=====] - 0s 322ms/step
6534it [50:36, 2.06it/s]
1/1 [=====] - 0s 324ms/step
6535it [50:36, 2.07it/s]
1/1 [=====] - 0s 333ms/step
6536it [50:37, 2.06it/s]
1/1 [=====] - 0s 322ms/step
6537it [50:37, 2.06it/s]
1/1 [=====] - 0s 319ms/step
6538it [50:38, 2.03it/s]
1/1 [=====] - 0s 313ms/step
6539it [50:38, 2.06it/s]
1/1 [=====] - 0s 331ms/step
6540it [50:38, 2.07it/s]
1/1 [=====] - 0s 325ms/step
6541it [50:39, 2.09it/s]
1/1 [=====] - 0s 308ms/step
6542it [50:39, 2.18it/s]
1/1 [=====] - 0s 318ms/step
6543it [50:40, 2.23it/s]
1/1 [=====] - 0s 316ms/step
6544it [50:40, 2.26it/s]
1/1 [=====] - 0s 312ms/step
6545it [50:41, 2.28it/s]
1/1 [=====] - 0s 318ms/step

```

6546it [50:41, 2.27it/s]
 1/1 [=====] - 0s 430ms/step
 6547it [50:42, 2.06it/s]
 1/1 [=====] - 0s 357ms/step
 6548it [50:42, 2.02it/s]
 1/1 [=====] - 0s 404ms/step
 6549it [50:43, 1.94it/s]
 1/1 [=====] - 0s 362ms/step
 6550it [50:43, 1.90it/s]
 1/1 [=====] - 0s 360ms/step
 6551it [50:44, 1.90it/s]
 1/1 [=====] - 0s 344ms/step
 6552it [50:44, 1.92it/s]
 1/1 [=====] - 0s 315ms/step
 6553it [50:45, 1.97it/s]
 1/1 [=====] - 0s 312ms/step
 6554it [50:45, 2.01it/s]
 1/1 [=====] - 0s 390ms/step
 6555it [50:46, 1.96it/s]
 1/1 [=====] - 0s 352ms/step
 6556it [50:46, 1.94it/s]
 1/1 [=====] - 0s 368ms/step
 6557it [50:47, 1.89it/s]
 1/1 [=====] - 0s 353ms/step
 6558it [50:47, 1.89it/s]
 1/1 [=====] - 0s 331ms/step
 6559it [50:48, 1.96it/s]
 1/1 [=====] - 0s 332ms/step
 6560it [50:48, 2.00it/s]
 1/1 [=====] - 0s 288ms/step
 6561it [50:49, 2.13it/s]
 1/1 [=====] - 0s 294ms/step

6562it [50:49, 2.19it/s]
 1/1 [=====] - 0s 327ms/step
 6563it [50:50, 2.18it/s]
 1/1 [=====] - 0s 310ms/step
 6564it [50:50, 2.19it/s]
 1/1 [=====] - 0s 321ms/step
 6565it [50:51, 2.17it/s]
 1/1 [=====] - 0s 316ms/step
 6566it [50:51, 2.16it/s]
 1/1 [=====] - 0s 326ms/step
 6567it [50:52, 2.15it/s]
 1/1 [=====] - 0s 322ms/step
 6568it [50:52, 2.13it/s]
 1/1 [=====] - 0s 345ms/step
 6569it [50:53, 2.09it/s]
 1/1 [=====] - 0s 345ms/step
 6570it [50:53, 2.05it/s]
 1/1 [=====] - 0s 313ms/step
 6571it [50:54, 2.08it/s]
 1/1 [=====] - 0s 320ms/step
 6572it [50:54, 2.09it/s]
 1/1 [=====] - 0s 312ms/step
 6573it [50:54, 2.09it/s]
 1/1 [=====] - 0s 357ms/step
 6574it [50:55, 2.00it/s]
 1/1 [=====] - 0s 355ms/step
 6575it [50:56, 1.98it/s]
 1/1 [=====] - 0s 362ms/step
 6576it [50:56, 1.99it/s]
 1/1 [=====] - 0s 369ms/step
 6577it [50:57, 1.97it/s]
 1/1 [=====] - 0s 325ms/step

6578it [50:57, 2.04it/s]
 1/1 [=====] - 0s 322ms/step
 6579it [50:57, 2.06it/s]
 1/1 [=====] - 0s 313ms/step
 6580it [50:58, 2.09it/s]
 1/1 [=====] - 0s 321ms/step
 6581it [50:58, 2.10it/s]
 1/1 [=====] - 0s 312ms/step
 6582it [50:59, 2.11it/s]
 1/1 [=====] - 0s 314ms/step
 6583it [50:59, 2.12it/s]
 1/1 [=====] - 0s 314ms/step
 6584it [51:00, 2.12it/s]
 1/1 [=====] - 0s 323ms/step
 6585it [51:00, 2.11it/s]
 1/1 [=====] - 0s 329ms/step
 6586it [51:01, 2.06it/s]
 1/1 [=====] - 0s 315ms/step
 6587it [51:01, 2.08it/s]
 1/1 [=====] - 0s 338ms/step
 6588it [51:02, 2.08it/s]
 1/1 [=====] - 0s 337ms/step
 6589it [51:02, 2.07it/s]
 1/1 [=====] - 0s 345ms/step
 6590it [51:03, 2.05it/s]
 1/1 [=====] - 0s 322ms/step
 6591it [51:03, 2.06it/s]
 1/1 [=====] - 0s 312ms/step
 6592it [51:04, 2.15it/s]
 1/1 [=====] - 0s 358ms/step
 6593it [51:04, 2.01it/s]
 1/1 [=====] - 0s 344ms/step

6594it [51:05, 2.04it/s]
 1/1 [=====] - 0s 364ms/step
 6595it [51:05, 1.92it/s]
 1/1 [=====] - 0s 371ms/step
 6596it [51:06, 1.89it/s]
 1/1 [=====] - 0s 352ms/step
 6597it [51:06, 1.88it/s]
 1/1 [=====] - 0s 321ms/step
 6598it [51:07, 1.90it/s]
 1/1 [=====] - 0s 339ms/step
 6599it [51:07, 1.94it/s]
 1/1 [=====] - 0s 335ms/step
 6600it [51:08, 1.97it/s]
 1/1 [=====] - 0s 322ms/step
 6601it [51:08, 2.01it/s]
 1/1 [=====] - 0s 319ms/step
 6602it [51:09, 2.04it/s]
 1/1 [=====] - 0s 315ms/step
 6603it [51:09, 2.07it/s]
 1/1 [=====] - 0s 335ms/step
 6604it [51:10, 2.07it/s]
 1/1 [=====] - 0s 326ms/step
 6605it [51:10, 2.08it/s]
 1/1 [=====] - 0s 360ms/step
 6606it [51:11, 2.03it/s]
 1/1 [=====] - 0s 373ms/step
 6607it [51:11, 1.99it/s]
 1/1 [=====] - 0s 417ms/step
 6608it [51:12, 1.90it/s]
 1/1 [=====] - 0s 327ms/step
 6609it [51:12, 1.98it/s]
 1/1 [=====] - 0s 383ms/step

6610it [51:13, 1.88it/s]
 1/1 [=====] - 0s 343ms/step
 6611it [51:13, 1.88it/s]
 1/1 [=====] - 0s 326ms/step
 6612it [51:14, 1.89it/s]
 1/1 [=====] - 0s 322ms/step
 6613it [51:14, 1.96it/s]
 1/1 [=====] - 0s 323ms/step
 6614it [51:15, 2.00it/s]
 1/1 [=====] - 0s 320ms/step
 6615it [51:15, 2.04it/s]
 1/1 [=====] - 0s 324ms/step
 6616it [51:16, 2.06it/s]
 1/1 [=====] - 0s 319ms/step
 6617it [51:16, 2.09it/s]
 1/1 [=====] - 0s 317ms/step
 6618it [51:17, 2.11it/s]
 1/1 [=====] - 0s 322ms/step
 6619it [51:17, 2.11it/s]
 1/1 [=====] - 0s 312ms/step
 6620it [51:18, 2.12it/s]
 1/1 [=====] - 0s 355ms/step
 6621it [51:18, 2.08it/s]
 1/1 [=====] - 0s 385ms/step
 6622it [51:19, 1.97it/s]
 1/1 [=====] - 0s 321ms/step
 6623it [51:19, 2.01it/s]
 1/1 [=====] - 0s 313ms/step
 6624it [51:20, 2.05it/s]
 1/1 [=====] - 0s 292ms/step
 6625it [51:20, 2.18it/s]
 1/1 [=====] - 0s 304ms/step

6626it [51:21, 2.25it/s]
 1/1 [=====] - 0s 307ms/step
 6627it [51:21, 2.29it/s]
 1/1 [=====] - 0s 344ms/step
 6628it [51:21, 2.27it/s]
 1/1 [=====] - 0s 339ms/step
 6629it [51:22, 2.25it/s]
 1/1 [=====] - 0s 346ms/step
 6630it [51:22, 2.07it/s]
 1/1 [=====] - 0s 403ms/step
 6631it [51:23, 1.96it/s]
 1/1 [=====] - 0s 399ms/step
 6632it [51:24, 1.88it/s]
 1/1 [=====] - 0s 365ms/step
 6633it [51:24, 1.87it/s]
 1/1 [=====] - 0s 312ms/step
 6634it [51:25, 1.90it/s]
 1/1 [=====] - 0s 315ms/step
 6635it [51:25, 1.96it/s]
 1/1 [=====] - 0s 316ms/step
 6636it [51:26, 2.01it/s]
 1/1 [=====] - 0s 321ms/step
 6637it [51:26, 2.05it/s]
 1/1 [=====] - 0s 311ms/step
 6638it [51:26, 2.09it/s]
 1/1 [=====] - 0s 333ms/step
 6639it [51:27, 2.08it/s]
 1/1 [=====] - 0s 318ms/step
 6640it [51:27, 2.10it/s]
 1/1 [=====] - 0s 306ms/step
 6641it [51:28, 2.13it/s]
 1/1 [=====] - 0s 290ms/step

6642it [51:28, 2.20it/s]
 1/1 [=====] - 0s 322ms/step
 6643it [51:29, 2.24it/s]
 1/1 [=====] - 0s 323ms/step
 6644it [51:29, 2.26it/s]
 1/1 [=====] - 0s 306ms/step
 6645it [51:30, 2.32it/s]
 1/1 [=====] - 0s 326ms/step
 6646it [51:30, 2.19it/s]
 1/1 [=====] - 0s 312ms/step
 6647it [51:31, 2.17it/s]
 1/1 [=====] - 0s 333ms/step
 6648it [51:31, 2.14it/s]
 1/1 [=====] - 0s 326ms/step
 6649it [51:32, 2.12it/s]
 1/1 [=====] - 0s 394ms/step
 6650it [51:32, 2.01it/s]
 1/1 [=====] - 0s 352ms/step
 6651it [51:33, 2.00it/s]
 1/1 [=====] - 0s 425ms/step
 6652it [51:33, 1.90it/s]
 1/1 [=====] - 0s 363ms/step
 6653it [51:34, 1.91it/s]
 1/1 [=====] - 0s 358ms/step
 6654it [51:34, 1.87it/s]
 1/1 [=====] - 0s 375ms/step
 6655it [51:35, 1.85it/s]
 1/1 [=====] - 0s 336ms/step
 6656it [51:35, 1.89it/s]
 1/1 [=====] - 0s 303ms/step
 6657it [51:36, 1.98it/s]
 1/1 [=====] - 0s 293ms/step

6658it [51:36, 2.08it/s]
 1/1 [=====] - 0s 302ms/step
 6659it [51:37, 2.19it/s]
 1/1 [=====] - 0s 306ms/step
 6660it [51:37, 2.26it/s]
 1/1 [=====] - 0s 303ms/step
 6661it [51:37, 2.32it/s]
 1/1 [=====] - 0s 327ms/step
 6662it [51:38, 2.31it/s]
 1/1 [=====] - 0s 329ms/step
 6663it [51:38, 2.22it/s]
 1/1 [=====] - 0s 324ms/step
 6664it [51:39, 2.18it/s]
 1/1 [=====] - 0s 312ms/step
 6665it [51:39, 2.18it/s]
 1/1 [=====] - 0s 335ms/step
 6666it [51:40, 2.13it/s]
 1/1 [=====] - 0s 337ms/step
 6667it [51:40, 2.10it/s]
 1/1 [=====] - 0s 325ms/step
 6668it [51:41, 2.10it/s]
 1/1 [=====] - 0s 320ms/step
 6669it [51:41, 2.10it/s]
 1/1 [=====] - 0s 305ms/step
 6670it [51:42, 2.07it/s]
 1/1 [=====] - 0s 324ms/step
 6671it [51:42, 2.08it/s]
 1/1 [=====] - 0s 413ms/step
 6672it [51:43, 1.98it/s]
 1/1 [=====] - 0s 378ms/step
 6673it [51:43, 1.94it/s]
 1/1 [=====] - 0s 359ms/step

6674it [51:44, 1.90it/s]

1/1 [=====] - 0s 370ms/step

6675it [51:44, 1.86it/s]

1/1 [=====] - 0s 367ms/step