C1W3_Assignment

December 23, 2020

1 Week 3 Assignment: Implement a Quadratic Layer

In this week's programming exercise, you will build a custom quadratic layer which computes $y = ax^2 + bx + c$. Similar to the ungraded lab, this layer will be plugged into a model that will be trained on the MNIST dataset. Let's get started!

1.0.1 Imports

```
[38]: import tensorflow as tf
from tensorflow.keras.layers import Layer
from tensorflow.keras.layers import Conv1D
import utils
```

1.0.2 Define the quadratic layer (TODO)

Implement a simple quadratic layer. It has 3 state variables: a, b and c. The computation returned is $ax^2 + bx + c$. Make sure it can also accept an activation function.

__init__

- call super(my_fun, self) to access the base class of my_fun, and call the __init__() function to initialize that base class. In this case, my_fun is SimpleQuadratic and its base class is Layer.
- self.units: set this using one of the function parameters.
- self.activation: The function parameter activation will be passed in as a string. To get the tensorflow object associated with the string, please use tf.keras.activations.get()

build The following are suggested steps for writing your code. If you prefer to use fewer lines to implement it, feel free to do so. Either way, you'll want to set self.a, self.b and self.c.

- a init: set this to tensorflow's random_normal_initializer()
- a_init_val: Use the random_normal_initializer() that you just created and invoke it, setting the shape and dtype.

- The shape of a should have its row dimension equal to the last dimension of input_shape, and its column dimension equal to the number of units in the layer.
- This is because you'll be matrix multiplying x^2 * a, so the dimensions should be compatible.
- set the dtype to 'float32'
- self.a: create a tensor using tf. Variable, setting the initial_value and set trainable to True.
- b_init, b_init_val, and self.b: these will be set in the same way that you implemented a_init, a init val and self.a
- c_init: set this to tf.zeros_initializer.
- c_init_val: Set this by calling the tf.zeros_initializer that you just instantiated, and set the shape and dtype
 - shape: This will be a vector equal to the number of units. This expects a tuple, and remember that a tuple (9,) includes a comma.
 - dtype: set to 'float32'.
- self.c: create a tensor using tf.Variable, and set the parameters initial_value and trainable.

call The following section performs the multiplication $x^2a + xb + c$. The steps are broken down for clarity, but you can also perform this calculation in fewer lines if you prefer. - x_squared: use tf.math.square() - x_squared_times_a: use tf.matmul().

- If you see an error saying InvalidArgumentError: Matrix size-incompatible, please check the order of the matrix multiplication to make sure that the matrix dimensions line up. -x_times_b: use tf.matmul(). - x2a_plus_xb_plus_c: add the three terms together. - activated_x2a_plus_xb_plus_c: apply the class's activation to the sum of the three terms.

```
[71]: ## Please uncomment all lines in this cell and replace those marked with `#_

"YOUR CODE HERE`.

## You can select all lines in this code cell with Ctrl+A (Windows/Linux) or_

"Cmd+A (Mac), then press Ctrl+/ (Windows/Linux) or Cmd+/ (Mac) to uncomment.

class SimpleQuadratic(Layer):

def __init__(self, units=32, activation=None):

    '''Initializes the class and sets up the internal variables'''

    super(SimpleQuadratic , self).__init__()
    self.units = units
    self.activation = tf.keras.activations.get(activation)

def build(self, input_shape):

    '''Create the state of the layer (weights)'''
    self.a = tf.Variable(initial_value = tf.

    ¬random_normal_initializer()((input_shape[-1] , self.units)) , trainable=True_

, dtype=tf.float32 ,name = "a")
```

Test your implementation

```
[72]: utils.test_simple_quadratic(SimpleQuadratic)
      \hbox{\tt [[-0.0146269919 -0.0307329874 \ 0.0409061387 \ ... \ 0.0127803255 \ -0.0543941818 ] } 
     -0.0339128226]
      [0.000235364583 0.0844936 -7.8107194e-05 ... 0.0448395722 -0.00126988906
     -0.0058556211
     [[2]]
     output_check: Expected output is incorrect. Please check operations in the
     call() method.
     Expected: 42.0
     Result: 330.0
      8 Tests passed
      1 Tests failed
              Exception
                                                          Traceback (most recent call_
      →last)
              <ipython-input-72-19a34ddbd59d> in <module>
         ---> 1 utils.test_simple_quadratic(SimpleQuadratic)
```

Train your model with the SimpleQuadratic layer that you just implemented.

```
[73]: # THIS CODE SHOULD RUN WITHOUT MODIFICATION
      # AND SHOULD RETURN TRAINING/TESTING ACCURACY at 97%+
      mnist = tf.keras.datasets.mnist
      (x_train, y_train),(x_test, y_test) = mnist.load_data()
      x train, x test = x train / 255.0, x test / 255.0
      image_height, image_width = 28, 28
      \#x\_train = x\_train.reshape(x\_train.shape[0], image\_height, image\_width, 1)
      \#x\_test = x\_test.reshape(x\_test.shape[0], image\_height, image\_width, 1)
      input_shape = (image_height, image_width, 1)
      model = tf.keras.models.Sequential([
        #tf.keras.layers.Conv2D(filters=64,kernel_size=(3,_
       →3),activation='relu',input_shape=input_shape),
        tf.keras.layers.Flatten(input_shape=(28, 28)),
        SimpleQuadratic(128, activation='relu'),
        tf.keras.layers.Dropout(0.2),
        tf.keras.layers.Dense(10, activation='softmax')
      ])
      model.compile(optimizer='adam',
                    loss='sparse_categorical_crossentropy',
```

```
metrics=['accuracy'])
model.fit(x_train, y_train, epochs=2)
model.evaluate(x_test, y_test)
Train on 60000 samples
Epoch 1/2
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
   32/60000 [...] - ETA: 6:44 - loss: 6.1357 -
accuracy: 0.2500[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }
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  256/60000 [...] - ETA: 1:08 - loss: 3.8303 -
accuracy: 0.2578[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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-0.0814717337]]
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
  512/60000 [...] - ETA: 45s - loss: 2.8509 -
accuracy: 0.3750 [[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

0.0211499725]

```
[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
```

```
800/60000 [...] - ETA: 36s - loss: 2.2169 -
accuracy: 0.4800[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
```

 $[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441$

```
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

0.0211499725]

```
[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
```

```
1152/60000 [...] - ETA: 30s - loss: 1.8855 -
accuracy: 0.5391[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
```

 $[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441$

```
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 1376/60000 [...] - ETA: 29s - loss: 1.7270 -
accuracy: 0.5654[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
```

```
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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-0.0814717337]]
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0.0306284577]
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
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-0.0814717337]]
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-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
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-0.0288503598]
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 $[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441$

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-0.0814717337]]
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
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 1696/60000 [...] - ETA: 27s - loss: 1.5427 -
accuracy: 0.6038[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
```

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0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
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-0.05304359271
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-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
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-0.0814717337]]
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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0.03062845771
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-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
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-0.0288503598]
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 $[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441$

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 2016/60000 [>...] - ETA: 25s - loss: 1.4291 -
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0.03062845771
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-0.05304359271
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
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-0.0814717337]]
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-0.05304359271
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-0.0265525915]
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0.0306284577]
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-0.0814717337]]
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
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0.0211499725]
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-0.0265525915]
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 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
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0.00335440855 - 0.0530435927
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 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
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-0.0530435927]

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-0.0814717337]]
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 2624/60000 [>...] - ETA: 23s - loss: 1.2708 -
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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0.0306284577]
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-0.0530435927]

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-0.05304359271
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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0.0306284577]
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-0.0814717337]]
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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
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-0.0530435927]

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0.03062845771
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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-0.0265525915]
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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0.0306284577]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
```

-0.0530435927]

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-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.03062845771
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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0.0211499725]
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-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.03062845771
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
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0.0306284577]

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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0.0306284577]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
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-0.0814717337]]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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36

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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
```

 $\hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }$

-0.0530435927]

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0.0211499725]
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 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
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0.03062845771
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-0.0814717337]]
 3872/60000 [>...] - ETA: 21s - loss: 1.0331 -
accuracy: 0.7213[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
```

39

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 4192/60000 [=>...] - ETA: 21s - loss: 0.9995 -
accuracy: 0.7283[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
```

0.00335440855 - 0.0530435927

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
```

42

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 4480/60000 [=>...] - ETA: 20s - loss: 0.9681 -
accuracy: 0.7362[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix}
```

-0.0530435927]

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
```

45

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 4800/60000 [=>...] - ETA: 20s - loss: 0.9379 -
accuracy: 0.7435[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix}
```

-0.0530435927]

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
```

48

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 5152/60000 [=>...] - ETA: 20s - loss: 0.9129 -
accuracy: 0.7508[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix}
```

-0.0530435927]

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 5440/60000 [=>...] - ETA: 19s - loss: 0.8956 -
accuracy: 0.7540[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
 5760/60000 [=>...] - ETA: 19s - loss: 0.8715 -
accuracy: 0.7587[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
  \begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix} 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 6080/60000 [==>...] - ETA: 19s - loss: 0.8447 -
accuracy: 0.7643[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 6400/60000 [==>...] - ETA: 19s - loss: 0.8207 -
accuracy: 0.7705[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

```
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix}
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 6720/60000 [==>...] - ETA: 18s - loss: 0.7996 -
accuracy: 0.7760[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & ... & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

```
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix}
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 7008/60000 [==>...] - ETA: 18s - loss: 0.7888 -
accuracy: 0.7784[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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```
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & ... & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

```
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix}
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
7328/60000 [==>...] - ETA: 18s - loss: 0.7706 -
accuracy: 0.7841[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }
```

```
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & ... & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

```
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix}
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ ... \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
7648/60000 [==>...] - ETA: 18s - loss: 0.7560 -
accuracy: 0.7886[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & ... & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }
```

```
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

```
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix}
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 7968/60000 [==>...] - ETA: 18s - loss: 0.7429 -
accuracy: 0.7918[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
```

 $\hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }$

```
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119\ ] }
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

```
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 8288/60000 [===>...] - ETA: 18s - loss: 0.7335 -
accuracy: 0.7944[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
```

 $\begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}$

```
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  \hbox{$ [-0.0477025919} \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272 \\
-0.0814717337]]
```

 $\hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }$

```
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119\ ] }
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

```
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
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 8608/60000 [===>...] - ETA: 17s - loss: 0.7227 -
accuracy: 0.7970[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
```

```
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  \hbox{$ [-0.0477025919} \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272 \\
-0.0814717337]]
```

 $\hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }$

```
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119\ ] }
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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0.0306284577]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  \hbox{$ [-0.0477025919} \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272 \\
-0.0814717337]]
```

 $\hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }$

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-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
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  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & ... & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119\ ] }
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

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0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 9248/60000 [===>...] - ETA: 17s - loss: 0.6963 -
accuracy: 0.8035[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
```

 $\begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}$

```
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
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-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  \hbox{$ [-0.0477025919} \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272 \\
-0.0814717337]]
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 $\hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }$

```
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
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-0.0265525915]
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0.03062845771
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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 9536/60000 [===>...] - ETA: 17s - loss: 0.6926 -
accuracy: 0.8047[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441}
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```
[0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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0.0306284577]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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-0.05304359271
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0.0306284577]
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-0.0814717337]]
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-0.05304359271
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0.0211499725
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-0.0265525915]
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0.0306284577]
  \hbox{$ [-0.0477025919} \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272 \\
-0.0814717337]]
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 $\hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }$

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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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0.03062845771
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-0.0814717337]]
 9888/60000 [===>...] - ETA: 17s - loss: 0.6827 -
accuracy: 0.8075[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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0.0211499725]
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-0.0814717337]]
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-0.0265525915]
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-0.0814717337]]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
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0.0306284577]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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-0.0265525915]
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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0.0306284577]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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10176/60000 [====>...] - ETA: 17s - loss: 0.6755 -
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-0.0288503598]
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0.0306284577]
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0.0306284577]
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-0.0265525915]
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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0.0306284577]
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-0.0814717337]]
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-0.05304359271
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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10528/60000 [====>...] - ETA: 16s - loss: 0.6635 -
```

```
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0.0211499725]
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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
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-0.0530435927]
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-0.0814717337]]

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-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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0.0306284577]
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11808/60000 [====>...] - ETA: 16s - loss: 0.6338 -
accuracy: 0.8191[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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0.0211499725]

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-0.0530435927]
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0.0306284577]
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12128/60000 [====>...] - ETA: 16s - loss: 0.6237 -
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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 $[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111$

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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix}
```

-0.0265525915]

```
[0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
12448/60000 [=====>...] - ETA: 16s - loss: 0.6168 -
accuracy: 0.8241[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 }
```

```
[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
```

```
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441}
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-0.0265525915]

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[0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
12768/60000 [=====>...] - ETA: 15s - loss: 0.6095 -
accuracy: 0.8262[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 }
```

```
[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
```

```
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
13088/60000 [=====>...] - ETA: 15s - loss: 0.6014 -
accuracy: 0.8286[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
```

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-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}
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```
[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
```

```
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
13376/60000 [=====>...] - ETA: 15s - loss: 0.6011 -
accuracy: 0.8294[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
```

```
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.05304359271
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

```
[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
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0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
```

```
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
13728/60000 [=====>...] - ETA: 15s - loss: 0.5947 -
accuracy: 0.8308[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
```

```
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

```
[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
14016/60000 [=====>...] - ETA: 15s - loss: 0.5896 -
accuracy: 0.8322[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  \begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}
```

```
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
```

```
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

```
[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
14336/60000 [=====>...] - ETA: 15s - loss: 0.5837 -
accuracy: 0.8334[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  \begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}
```

```
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
```

```
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

```
[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
14656/60000 [=====>...] - ETA: 15s - loss: 0.5783 -
accuracy: 0.8345[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 \end{bmatrix} 
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
```

 $[-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272$

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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
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-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
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  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
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-0.02655259157
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

```
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
15008/60000 [=====>...] - ETA: 14s - loss: 0.5719 -
accuracy: 0.8361[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 \end{bmatrix} 
-0.0530435927
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
```

```
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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0.0211499725]
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  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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-0.0265525915]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
15328/60000 [=====>...] - ETA: 14s - loss: 0.5663 -
accuracy: 0.8376[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
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 $\hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }$

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0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
```

 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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-0.0265525915]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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15648/60000 [=====>...] - ETA: 14s - loss: 0.5604 -
accuracy: 0.8390[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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 $\hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }$

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0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
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0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
```

 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

```
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
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0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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-0.0265525915]
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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15968/60000 [=====>...] - ETA: 14s - loss: 0.5548 -
accuracy: 0.8404[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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 $\hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }$

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0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0265525915]
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0.03062845771
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
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0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
```

```
-0.0265525915]
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
16288/60000 [======>...] - ETA: 14s - loss: 0.5482 -
accuracy: 0.8423[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 $\hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }$

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 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

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-0.0814717337]]
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0.0211499725]
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-0.0265525915]
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0.0306284577]
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-0.0814717337]]
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-0.05304359271
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0.0211499725]
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 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

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0.0306284577]
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-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
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-0.0814717337]]
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 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0265525915]
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-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.0265525915]
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17536/60000 [======>...] - ETA: 14s - loss: 0.5312 -
accuracy: 0.8466[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
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```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
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-0.0265525915]
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0.0306284577]
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-0.0530435927]
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0.03062845771
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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-0.05304359271
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0.0306284577]
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17888/60000 [======>...] - ETA: 13s - loss: 0.5300 -
accuracy: 0.8476[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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0.0306284577]
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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161

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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
18848/60000 [======>...] - ETA: 13s - loss: 0.5174 -
accuracy: 0.8512[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
```

0.00335440855 - 0.0530435927

```
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

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[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
```

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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
19168/60000 [======>...] - ETA: 13s - loss: 0.5144 -
accuracy: 0.8520[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix}
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-0.0530435927]

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[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
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```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
19488/60000 [======>...] - ETA: 13s - loss: 0.5116 -
accuracy: 0.8530[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix}
```

-0.0530435927]

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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0.0211499725]
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-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
19776/60000 [======>...] - ETA: 13s - loss: 0.5078 -
accuracy: 0.8543[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}
```

-0.0288503598]

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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
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20096/60000 [=======>...] - ETA: 13s - loss: 0.5044 -
accuracy: 0.8551[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}
```

-0.0288503598]

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
20416/60000 [=======>...] - ETA: 12s - loss: 0.5008 -
accuracy: 0.8559[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}
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-0.0288503598]

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  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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-0.0265525915]
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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
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-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
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0.0306284577]

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[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
20768/60000 [=======>...] - ETA: 12s - loss: 0.4979 -
accuracy: 0.8566[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}
```

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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
21056/60000 [=======>...] - ETA: 12s - loss: 0.4953 -
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0.00335440855 - 0.0530435927
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0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix} 
-0.0288503598]
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-0.0265525915]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
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-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix}
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
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-0.0814717337]]
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-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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-0.0814717337]]
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0.0211499725]
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-0.0814717337]]
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-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
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  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.081471733711
21344/60000 [=======>...] - ETA: 12s - loss: 0.4940 -
accuracy: 0.8577[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119\ ] }
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

```
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 ] 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix}
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

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[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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21696/60000 [=======>...] - ETA: 12s - loss: 0.4903 -
accuracy: 0.8584[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119\ ] }
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

```
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix}
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
22016/60000 [========>...] - ETA: 12s - loss: 0.4872 -
accuracy: 0.8591[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
```

```
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & ... & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119\ ] }
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
   \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.0076844491 & 0.0076844491 & 0.0076844491 & 0.00768444 & 0.00768444 & 0.00768444 & 0.00768444 & 0.00768444 & 0.00
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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ ... \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
22336/60000 [=======>...] - ETA: 12s - loss: 0.4837 -
accuracy: 0.8600[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
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-0.02885035981
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
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-0.0530435927]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0265525915]
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0.03062845771
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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-0.0265525915]
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-0.0814717337]]
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-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
   \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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-0.0265525915]
   \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
   \begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix} 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 \end{bmatrix} 
-0.0530435927]
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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ ... \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
22656/60000 [========>...] - ETA: 12s - loss: 0.4794 -
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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-0.0814717337]]
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0.03062845771
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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22976/60000 [=======>...] - ETA: 12s - loss: 0.4763 -
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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23264/60000 [=======>...] - ETA: 11s - loss: 0.4732 -
accuracy: 0.8626[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
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-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
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 $\begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}$

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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.03062845771
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
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-0.0265525915]
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-0.0814717337]]
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 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
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-0.02885035981
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  \hbox{$ [-0.0477025919} \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272 \\
-0.0814717337]]
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  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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0.03062845771
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
  [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119\ ] }
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.0076844491 & 0.0076844491 & 0.0076844491 & 0.00768444 & 0.00768444 & 0.00768444 & 0.00768444 & 0.00768444 & 0.00
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  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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accuracy: 0.8634[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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0.0211499725]
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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
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-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
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0.0306284577]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 $\begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}$

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  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
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-0.0814717337]]
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0.0306284577]
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-0.02655259157
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0.03062845771
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
  [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
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0.03062845771
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.02885035981
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119\ ] }
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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0.0306284577]
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23936/60000 [========>...] - ETA: 11s - loss: 0.4674 -
accuracy: 0.8643[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
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0.0306284577]
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 $\begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}$

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-0.0265525915]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
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  \hbox{$ [-0.0477025919} \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272 \\
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  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.007684491 & 0.0076844491 & 0.0076844491 & 0.0076844491 & 0.00768444 & 0.00768444 & 0.00768444 & 0.00768444 & 0.00768444 & 0.00
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-0.0265525915]
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24256/60000 [=========>...] - ETA: 11s - loss: 0.4656 -
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 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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 $\begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}$

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-0.05304359271
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  \hbox{$ [-0.0477025919} \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272 \\
-0.0814717337]]
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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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-0.0265525915]
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-0.0265525915]

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0.0306284577]
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0.03062845771
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 $[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111$

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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
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 $\hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }$

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-0.05304359271
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-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
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25216/60000 [========>...] - ETA: 11s - loss: 0.4601 -
accuracy: 0.8667[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
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0.0306284577]
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0.0306284577]
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25536/60000 [========>...] - ETA: 11s - loss: 0.4580 -
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0.0211499725]
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 $\begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}$

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25856/60000 [========>...] - ETA: 11s - loss: 0.4550 -
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-0.0814717337]]

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 $\begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}$

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-0.0814717337]]
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0.03062845771
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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 $[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111$

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0.00335440855 - 0.0530435927
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0.0306284577]
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-0.0814717337]]
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-0.0265525915]
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0.0306284577]
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27808/60000 [=========>...] - ETA: 10s - loss: 0.4446 -
accuracy: 0.8708[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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0.0306284577]
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0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
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-0.0265525915]
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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0.03062845771
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```

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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
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-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix}
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```
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
28128/60000 [=========>...] - ETA: 10s - loss: 0.4418 -
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0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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-0.0814717337]]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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-0.0814717337]]
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  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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```
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
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-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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-0.0288503598]
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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28448/60000 [=========>...] - ETA: 10s - loss: 0.4392 -
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-0.0288503598]
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 $[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441$

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-0.02655259157
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.02885035981
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0.0306284577]
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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-0.0265525915]
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0.03062845771
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-0.0814717337]]
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-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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```
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
28768/60000 [=========>...] - ETA: 10s - loss: 0.4372 -
accuracy: 0.8728[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
```

 $[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441$

```
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}
```

```
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
```

 $[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111$

```
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
accuracy: 0.8733 [[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
```

```
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

0.0211499725]

```
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
```

 $[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111$

```
29408/60000 [=========>...] - ETA: 9s - loss: 0.4341 -
accuracy: 0.8737[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.02885035981
```

```
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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0.0211499725]

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-0.0288503598]
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 $[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111$

```
29760/60000 [=========>...] - ETA: 9s - loss: 0.4314 -
accuracy: 0.8745[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

0.0211499725]

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0.00335440855 - 0.0530435927
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0.0211499725]

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 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

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295

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0.00335440855 - 0.0530435927

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0.0306284577]
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304

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-0.0530435927]

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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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0.0211499725]
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-0.02885035981
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-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
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 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
accuracy: 0.8831[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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-0.0265525915]
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  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}
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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
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[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
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-0.0814717337]]
accuracy: 0.8835[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
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-0.0288503598]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}
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-0.0814717337]]
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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0.0306284577]
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-0.0814717337]]
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-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
36064/60000 [===========>...] - ETA: 7s - loss: 0.3959 -
accuracy: 0.8840[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
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0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

```
0.0306284577]
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-0.05304359271
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 \end{bmatrix}
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
accuracy: 0.8842[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

```
0.0306284577]
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
   \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768444911 & 0.00768444911 & 0.00768444911 & 0.007684441 & 0.007684441 & 0.00768444 & 0.00768444 & 0.00768444 & 0.00768444 & 0.007
```

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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
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  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
accuracy: 0.8846[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
```

```
0.00335440855 - 0.0530435927
   \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
   [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
  [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
   \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & ... & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768444911 & 0.00768444911 & 0.00768444911 & 0.007684441 & 0.007684441 & 0.00768444 & 0.00768444 & 0.00768444 & 0.00768444 & 0.007
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

```
0.0306284577]
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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0.0211499725]
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-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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```

```
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-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
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-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
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-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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-0.0814717337]]
accuracy: 0.8851[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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   \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
   [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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0.03062845771
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
   \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & ... & -0.0999489054 & -0.0236086119 \end{bmatrix} 
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0.03062845771
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }
0.0211499725]
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  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

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0.0306284577]
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-0.0814717337]]
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-0.05304359271
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0.0306284577]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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0.0211499725]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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-0.0288503598]
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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-0.0814717337]]
accuracy: 0.8853[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
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0.0211499725
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-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
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-0.02885035981
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }
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0.0211499725]
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0.03062845771
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 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

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-0.0814717337]]
accuracy: 0.8866[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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 $\begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}$

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 $[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111$

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 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

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 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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 $[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111$

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-0.0530435927]
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0.0211499725]
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  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
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  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
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-0.02655259157
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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0.0211499725]
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

```
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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-0.0530435927]
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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accuracy: 0.8924[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
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-0.0814717337]]
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 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

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0.03062845771
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0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  \begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}
```

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-0.0814717337]]
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-0.0530435927]
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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-0.0814717337]]
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
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0.0211499725]
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.0288503598]
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-0.0265525915]
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0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

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0.00335440855 - 0.0530435927
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-0.05304359271
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

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-0.05304359271
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 $[-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272$

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-0.0814717337]]
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0.0306284577]
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414

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0.00335440855 - 0.0530435927

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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
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-0.0288503598]

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0.0306284577]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
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0.00335440855 - 0.0530435927
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.0288503598]

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0.0306284577]

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0.00335440855 -0.05304359271
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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0.0306284577]
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  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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-0.0814717337]]
accuracy: 0.9000[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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-0.0814717337]]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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0.0306284577]
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-0.0814717337]]
accuracy: 0.9002[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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-0.0265525915]
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0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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accuracy: 0.9004[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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0.03062845771
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-0.0814717337]]
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0.0306284577]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.05304359271
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0.0306284577]
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-0.0814717337]]
accuracy: 0.9008[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 $\begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}$

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 $[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441$

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-0.0814717337]]
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-0.05304359271
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0.0306284577]
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 $[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111$

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0.00335440855 -0.0530435927]
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 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
```

```
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
60000/60000 [============== ] - 19s 317us/sample - loss: 0.3212 -
accuracy: 0.9051
Epoch 2/2
```

 $\begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix}$

```
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
   32/60000 [...] - ETA: 4s - loss: 0.1125 -
accuracy: 0.9375[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
   64/60000 [...] - ETA: 1:17 - loss: 0.2429 -
accuracy: 0.9375[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
```

```
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}
```

```
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
```

 $[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111$

```
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
  384/60000 [...] - ETA: 28s - loss: 0.2343 -
accuracy: 0.9479 [[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
```

```
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}
```

```
[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
```

```
704/60000 [...] - ETA: 23s - loss: 0.2022 -
accuracy: 0.9474[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
```

```
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}
```

```
[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 1024/60000 [...] - ETA: 22s - loss: 0.1657 -
accuracy: 0.9580[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  \begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}
```

```
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
```

```
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}
```

```
[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 1312/60000 [...] - ETA: 21s - loss: 0.1755 -
accuracy: 0.9527[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
```

 $[-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272$

```
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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0.0306284577]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.0814717337]]
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-0.0288503598]
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-0.02655259157
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.0265525915]
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0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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 $\begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix}$

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accuracy: 0.9501[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.03062845771
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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 $[-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272$

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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
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-0.0265525915]
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 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
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 $\hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }$

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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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-0.05304359271
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0.0211499725]
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-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

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-0.0814717337]]
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 $\hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }$

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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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0.03062845771
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-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
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accuracy: 0.9487[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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0.0306284577]
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-0.0265525915]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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 $\hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }$

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-0.0265525915]
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
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 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

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-0.0814717337]]
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0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 2912/60000 [>...] - ETA: 19s - loss: 0.1697 -
accuracy: 0.9502[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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-0.0265525915]
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0.03062845771
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.0265525915]
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 \begin{bmatrix} [-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 \end{bmatrix} 
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-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
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accuracy: 0.9517[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
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 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0265525915]
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
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-0.0265525915]
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0.0306284577]
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-0.0530435927]
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-0.0265525915]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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0.03062845771
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

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-0.0814717337]]
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  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
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 3552/60000 [>...] - ETA: 18s - loss: 0.1678 -
accuracy: 0.9507[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0265525915]
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0.0306284577]
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-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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0.0306284577]
```

 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

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 3872/60000 [>...] - ETA: 18s - loss: 0.1620 -
accuracy: 0.9522[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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-0.0814717337]]
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0.0306284577]
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0.03062845771
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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
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 $\begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix}$

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-0.0814717337]]
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-0.0814717337]]
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0.0306284577]
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-0.0814717337]]
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0.0306284577]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548] }
0.0306284577]
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-0.0814717337]]
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-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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```

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-0.0265525915]
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
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-0.0288503598]
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-0.0265525915]
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 4832/60000 [=>...] - ETA: 18s - loss: 0.1677 -
accuracy: 0.9497[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
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-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548] }
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 5152/60000 [=>...] - ETA: 17s - loss: 0.1661 -
accuracy: 0.9503[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
```

0.00335440855 - 0.0530435927

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
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-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548] }
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
```

```
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 5504/60000 [=>...] - ETA: 17s - loss: 0.1628 -
accuracy: 0.9517[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
```

0.00335440855 - 0.0530435927

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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-0.0265525915]
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0.0306284577]
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 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
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accuracy: 0.9519[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix}
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-0.0530435927]

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-0.0530435927]

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0.0211499725]
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0.0306284577]
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-0.0530435927]
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0.0211499725]
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0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
```

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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 6464/60000 [==>...] - ETA: 17s - loss: 0.1616 -
accuracy: 0.9513[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix}
```

-0.0530435927]

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 6784/60000 [==>...] - ETA: 17s - loss: 0.1606 -
accuracy: 0.9515[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}
```

-0.0288503598]

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
```

```
[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
7072/60000 [==>...] - ETA: 17s - loss: 0.1612 -
accuracy: 0.9511[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
  \begin{bmatrix} -0.0477025919 & -0.00362604298 & -0.0296444185 & \dots & -0.0544186309 & 0.0261861272 \\ \end{bmatrix} 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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-0.0265525915]
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0.0306284577]
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-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.02655259157
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
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0.0306284577]

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[-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
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 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 \ 0.0529014766 \ -0.0152357165 \ \dots \ 0.0605931878 \ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
7424/60000 [==>...] - ETA: 16s - loss: 0.1609 -
accuracy: 0.9515[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}
```

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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
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  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix}
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0.0306284577]

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  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix}
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 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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-0.0265525915]
   \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
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  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 8064/60000 [===>...] - ETA: 16s - loss: 0.1609 -
accuracy: 0.9516[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768444911 & 0.00768444911 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
   \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 ] 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768444911 & 0.00768444911 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.
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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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   \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
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-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
  8384/60000 [===>...] - ETA: 16s - loss: 0.1615 -
accuracy: 0.9515[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
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  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
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-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119\ ] }
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   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768444911 & 0.00768444911 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
   \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
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-0.0288503598]
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
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-0.0288503598]
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-0.0265525915]
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768444911 & 0.00768444911 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
```

```
[0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
  \hbox{\tt [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.081471733711
 8704/60000 [===>...] - ETA: 16s - loss: 0.1604 -
accuracy: 0.9519[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119\ ] }
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
```

```
0.0306284577]
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
   \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 ] 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768444911 & 0.00768444911 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.
```

```
[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 9024/60000 [===>...] - ETA: 16s - loss: 0.1621 -
accuracy: 0.9512[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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0.00335440855 - 0.0530435927
   \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
   [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
  [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
   \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & ... & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }
0.0211499725]
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-0.0814717337]]
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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9344/60000 [===>...] - ETA: 16s - loss: 0.1597 -
accuracy: 0.9519[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768444911 & 0.00768444911 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.
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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 [[-0.0303050857 \ -0.127750814 \ -0.0522238314 \ \dots \ 0.0412890837 \ 0.00335440855 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix} 
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
9696/60000 [===>...] - ETA: 15s - loss: 0.1614 -
accuracy: 0.9514[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  \hbox{$ [-0.0477025919} \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272 \\
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }
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-0.0530435927]
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
   [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
   \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & ... & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
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-0.02885035981
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-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }
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   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768444911 & 0.00768444911 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
   \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768444911 & 0.00768444911 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.
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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 9984/60000 [===>...] - ETA: 15s - loss: 0.1616 -
accuracy: 0.9514[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  \hbox{$ [-0.0477025919} \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272 \\
-0.0814717337]]
```

 $\hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }$

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-0.0530435927]
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0.0211499725]
   [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
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  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
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0.0306284577]
   [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
  [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
   \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & ... & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.02885035981
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  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
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  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
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0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768444911 & 0.00768444911 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.
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  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
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-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
   \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
   \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
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  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] } 
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768444911 & 0.00768444911 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.
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[0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
10336/60000 [====>...] - ETA: 15s - loss: 0.1627 -
accuracy: 0.9512[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
  \hbox{$ [-0.0477025919} \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272 \\
-0.0814717337]]
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 $\hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }$

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-0.0530435927]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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  [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
  [0.0898553357 0.0424994864 -0.0589432679 ... 0.0174979102 0.0367384441
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  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
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 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & \dots & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
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  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
   \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119] }
0.0211499725]
   \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.007684491111 & 0.007684491111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768449111 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.0076844911 & 0.00768444911 & 0.00768444911 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.007684441 & 0.
-0.0288503598]
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-0.0265525915]
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0265525915]
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0.0306284577]
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-0.0814717337]]
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  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
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-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
10624/60000 [====>...] - ETA: 15s - loss: 0.1645 -
accuracy: 0.9509[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
```

 $[-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111$

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-0.02885035981
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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
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-0.0288503598]
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-0.0265525915]
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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 $\hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }$

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10944/60000 [====>...] - ETA: 15s - loss: 0.1637 -
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-0.0814717337]]
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 $\hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] }$

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11296/60000 [====>...] - ETA: 15s - loss: 0.1649 -
accuracy: 0.9506[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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-0.02885035981
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-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111 
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
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  [-0.0477025919 \ -0.00362604298 \ -0.0296444185 \ \dots \ -0.0544186309 \ 0.0261861272 
-0.0814717337]]
 \begin{bmatrix} [-0.0303050857 & -0.127750814 & -0.0522238314 & ... & 0.0412890837 & 0.00335440855 \end{bmatrix} 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
12256/60000 [====>...] - ETA: 15s - loss: 0.1628 -
accuracy: 0.9510[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix}
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[0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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-0.0814717337]]
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-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
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-0.0265525915]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0265525915]
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 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725
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0.0306284577]
  \hbox{$ [-0.0477025919} \ -0.00362604298 \ -0.0296444185 \ ... \ -0.0544186309 \ 0.0261861272 \\
-0.0814717337]]
12544/60000 [====>...] - ETA: 15s - loss: 0.1627 -
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accuracy: 0.9509[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 -0.0530435927]
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0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0265525915]
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix}
```

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[0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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0.0306284577]
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
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  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
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0.0306284577]
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-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
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-0.02885035981
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-0.0265525915]
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0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
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-0.05304359271
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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-0.0265525915]
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
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12864/60000 [====>...] - ETA: 14s - loss: 0.1621 -
accuracy: 0.9511[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
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 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
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-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
```

-0.0814717337]]

```
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
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 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
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 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
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0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix}
```

```
[0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
```

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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
13184/60000 [=====>...] - ETA: 14s - loss: 0.1617 -
accuracy: 0.9511[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
```

-0.0814717337]]

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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix}
```

```
[0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
  \hbox{\tt [0.0898553357\ 0.0424994864\ -0.0589432679\ ...\ 0.0174979102\ 0.0367384441} 
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
```

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-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
13504/60000 [=====>...] - ETA: 14s - loss: 0.1615 -
accuracy: 0.9510[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837
0.00335440855 - 0.0530435927
  \begin{bmatrix} 0.0942638218 & 0.0290318113 & -0.0149100218 & \dots & -0.0999489054 & -0.0236086119 \end{bmatrix} 
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \hbox{\tt [0.0197034571~0.0529014766~-0.0152357165~...~0.0605931878~-0.0518718548} 
0.03062845771
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ ... \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
  \hbox{\tt [0.0942638218\ 0.0290318113\ -0.0149100218\ ...\ -0.0999489054\ -0.0236086119} 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
```

-0.0814717337]]

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[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 0.0290318113 -0.0149100218 ... -0.0999489054 -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ ... \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
  \begin{bmatrix} -0.0147014707 & 0.00216276245 & -0.00718989735 & \dots & 0.00477966294 & -0.00768449111 \end{bmatrix} 
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 0.00216276245 -0.00718989735 ... 0.00477966294 -0.00768449111
-0.0288503598]
  \begin{bmatrix} 0.0898553357 & 0.0424994864 & -0.0589432679 & \dots & 0.0174979102 & 0.0367384441 \end{bmatrix}
```

```
[0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.05304359271
  \hbox{\tt [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119 } 
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571 0.0529014766 -0.0152357165 ... 0.0605931878 -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
[[-0.0303050857 -0.127750814 -0.0522238314 ... 0.0412890837 0.00335440855
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ \dots \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.02885035981
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
  \begin{bmatrix} 0.0197034571 & 0.0529014766 & -0.0152357165 & \dots & 0.0605931878 & -0.0518718548 \end{bmatrix} 
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272]
-0.0814717337]]
 \hbox{\tt [[-0.0303050857 -0.127750814 -0.0522238314 \dots 0.0412890837 \ 0.00335440855] } 
-0.0530435927]
 [0.0942638218 \ 0.0290318113 \ -0.0149100218 \ ... \ -0.0999489054 \ -0.0236086119
0.0211499725]
 [-0.0147014707 \ 0.00216276245 \ -0.00718989735 \ \dots \ 0.00477966294 \ -0.00768449111
-0.0288503598]
 [0.0898553357 \ 0.0424994864 \ -0.0589432679 \ \dots \ 0.0174979102 \ 0.0367384441
-0.0265525915]
 [0.0197034571\ 0.0529014766\ -0.0152357165\ ...\ 0.0605931878\ -0.0518718548
0.0306284577]
 [-0.0477025919 -0.00362604298 -0.0296444185 ... -0.0544186309 0.0261861272
-0.0814717337]]
13824/60000 [=====>...] - ETA: 14s - loss: 0.1604 -
accuracy: 0.9512
```

```
KeyboardInterrupt
                                                 Traceback (most recent call
→last)
       <ipython-input-73-8e543ad831b0> in <module>
        27
                        metrics=['accuracy'])
   ---> 29 model.fit(x_train, y_train, epochs=2)
        30 model.evaluate(x_test, y_test)
       /opt/conda/lib/python3.7/site-packages/tensorflow_core/python/keras/
→engine/training.py in fit(self, x, y, batch_size, epochs, verbose, callbacks, u
→validation_split, validation_data, shuffle, class_weight, sample_weight, u
→initial_epoch, steps_per_epoch, validation_steps, validation_freq,
→max_queue_size, workers, use_multiprocessing, **kwargs)
                  max queue size=max queue size,
       817
      818
                  workers=workers,
                  use multiprocessing=use multiprocessing)
   --> 819
      820
      821
            def evaluate(self,
       /opt/conda/lib/python3.7/site-packages/tensorflow_core/python/keras/
→engine/training_v2.py in fit(self, model, x, y, batch_size, epochs, verbose,
→callbacks, validation_split, validation_data, shuffle, class_weight,
→sample_weight, initial_epoch, steps_per_epoch, validation_steps, u
→validation_freq, max_queue_size, workers, use_multiprocessing, **kwargs)
                           mode=ModeKeys.TRAIN,
       340
                          training_context=training_context,
       341
   --> 342
                           total_epochs=epochs)
       343
                       cbks.make_logs(model, epoch_logs, training_result,_
→ModeKeys.TRAIN)
      344
       /opt/conda/lib/python3.7/site-packages/tensorflow_core/python/keras/
→engine/training_v2.py in run_one_epoch(model, iterator, execution_function,
→dataset_size, batch_size, strategy, steps_per_epoch, num_samples, mode,
→training_context, total_epochs)
      126
                   step=step, mode=mode, size=current_batch_size) as batch_logs:
      127
                 try:
                   batch_outs = execution_function(iterator)
   --> 128
       129
                 except (StopIteration, errors.OutOfRangeError):
```

```
130
                   # TODO(kaftan): File bug about tf function and errors.
→OutOfRangeError?
       /opt/conda/lib/python3.7/site-packages/tensorflow_core/python/keras/
→engine/training_v2_utils.py in execution_function(input_fn)
               # `numpy` translates Tensors to values in Eager mode.
        97
               return nest.map_structure(_non_none_constant_value,
   ---> 98
                                         distributed_function(input_fn))
       99
       100
            return execution_function
       /opt/conda/lib/python3.7/site-packages/tensorflow_core/python/eager/

→def_function.py in __call__(self, *args, **kwds)
       566
                   xla_context.Exit()
       567
               else:
   --> 568
                 result = self._call(*args, **kwds)
       569
       570
               if tracing_count == self._get_tracing_count():
       /opt/conda/lib/python3.7/site-packages/tensorflow_core/python/eager/
→def_function.py in _call(self, *args, **kwds)
       597
                 # In this case we have created variables on the first call, so__
→we run the
       598
                 # defunned version which is guaranteed to never create_
→variables.
   --> 599
                 return self._stateless_fn(*args, **kwds) # pylint:__
→disable=not-callable
       600
               elif self._stateful_fn is not None:
       601
                 # Release the lock early so that multiple threads can perform_

→the call

       /opt/conda/lib/python3.7/site-packages/tensorflow_core/python/eager/
→function.py in __call__(self, *args, **kwargs)
               with self. lock:
      2361
      2362
                 graph_function, args, kwargs = self.
→_maybe_define_function(args, kwargs)
               return graph_function._filtered_call(args, kwargs) # pylint:__
→disable=protected-access
      2364
      2365
             @property
```

```
/opt/conda/lib/python3.7/site-packages/tensorflow_core/python/eager/
      →function.py in _filtered_call(self, args, kwargs)
            1609
                          if isinstance(t, (ops.Tensor,
            1610
                                            resource_variable_ops.
      →BaseResourceVariable))),
         -> 1611
                         self.captured_inputs)
            1612
            1613
                   def _call_flat(self, args, captured_inputs,_
      ⇒cancellation manager=None):
             /opt/conda/lib/python3.7/site-packages/tensorflow_core/python/eager/
      →function.py in _call_flat(self, args, captured_inputs, cancellation_manager)
                       # No tape is watching; skip to running the function.
            1690
            1691
                       return self._build_call_outputs(self._inference_function.call(
                           ctx, args, cancellation manager=cancellation manager))
         -> 1692
                     forward_backward = self._select_forward_and_backward_functions(
            1693
            1694
                         args,
             /opt/conda/lib/python3.7/site-packages/tensorflow_core/python/eager/
      →function.py in call(self, ctx, args, cancellation_manager)
             543
                               inputs=args,
                               attrs=("executor_type", executor_type, "config_proto", __
             544
      --> 545
                               ctx=ctx)
             546
                         else:
             547
                           outputs = execute.execute_with_cancellation(
             /opt/conda/lib/python3.7/site-packages/tensorflow_core/python/eager/
      →execute.py in quick_execute(op_name, num_outputs, inputs, attrs, ctx, name)
                     tensors = pywrap_tensorflow.TFE_Py_Execute(ctx._handle,_
      →device_name,
              60
                                                                 op_name, inputs,_
      ⇒attrs,
         ---> 61
                                                                num_outputs)
              62
                   except core. NotOkStatusException as e:
              63
                     if name is not None:
             KeyboardInterrupt:
[31]: img_rows=x_train[0].shape[0]
```

img_cols=x_test[0].shape[1]

```
X_train=x_train.reshape(x_train.shape[0],img_rows,img_cols,1)

[54]: x_train.shape

[54]: (60000, 28, 28)

[37]: x_train.shape

[37]: (60000, 28, 28, 1)

[]:
```