



✓ **Congratulations! You passed!**  
TO PASS 80% or higher

Keep Learning

GRADE  
**100%**

## Week 3 Quiz

LATEST SUBMISSION GRADE

100%

1. If  $X$  is the standard notation for the input to an RNN, what are the standard notations for the outputs?

1 / 1 point

- ☐  $Y$
- ☐  $H$
- ☒  $\hat{Y}$  and  $H$
- ☐  $\hat{H}$  and  $Y$

✓ Correct

2. What is a sequence to vector if an RNN has 30 cells numbered 0 to 29

1 / 1 point

- ☐ The average  $\hat{Y}$  for all 30 cells
- ☒ The  $\hat{Y}$  for the last cell
- ☐ The total  $\hat{Y}$  for all cells
- ☐ The  $\hat{Y}$  for the first cell

✓ Correct

3. What does a Lambda layer in a neural network do?

1 / 1 point

- ☐ Pauses training without a callback
- ☐ There are no Lambda layers in a neural network
- ☐ Changes the shape of the input or output data
- ☒ Allows you to execute arbitrary code while training

✓ Correct

4. What does the axis parameter of `tf.expand_dims` do?

1 / 1 point

- ☒ Defines the dimension index at which you will expand the shape of the tensor
- ☐ Defines the dimension index to remove when you expand the tensor
- ☐ Defines if the tensor is X or Y
- ☐ Defines the axis around which to expand the dimensions

✓ Correct

5. A new loss function was introduced in this module, named after a famous statistician. What is it called?

1 / 1 point

- ☐ Hubble loss
- ☐ Hawking loss
- ☒ Huber loss
- ☐ Hyatt loss

✓ Correct

6. What's the primary difference between a simple RNN and an LSTM

1 / 1 point

- ☐ LSTMs have a single output, RNNs have multiple
- ☐ In addition to the H output, RNNs have a cell state that runs across all cells
- ☒ In addition to the H output, LSTMs have a cell state that runs across all cells
- ☐ LSTMs have multiple outputs, RNNs have a single one

✓ Correct

7. If you want to clear out all temporary variables that tensorflow might have from previous sessions, what code do you run?

1 / 1 point

- ☐ tf.keras.clear\_session
- ☐ tf.cache.backend.clear\_session()
- ☐ tf.cache.clear\_session()
- ☒ tf.keras.backend.clear\_session()

✓ Correct

8. What happens if you define a neural network with these two layers?

1 / 1 point

```
tf.keras.layers.Bidirectional(tf.keras.layers.LSTM(32)),
```

```
tf.keras.layers.Bidirectional(tf.keras.layers.LSTM(32)),
```

```
tf.keras.layers.Dense(1),
```

- ☐ Your model will fail because you need return\_sequences=True after each LSTM layer
- ☐ Your model will compile and run correctly
- ☐ Your model will fail because you have the same number of cells in each LSTM
- ☒ Your model will fail because you need return\_sequences=True after the first LSTM layer

✓ Correct