

✓ **Congratulations! You passed!**

Grade received **100%** Latest Submission Grade **100%** To pass 80% or higher

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1. For the the following code:

1 / 1 point

```
model = Sequential([  
    Dense(units=25, activation="sigmoid"),  
    Dense(units=15, activation="sigmoid"),  
    Dense(units=10, activation="sigmoid"),  
    Dense(units=1, activation="sigmoid")])
```

This code will define a neural network with how many layers?

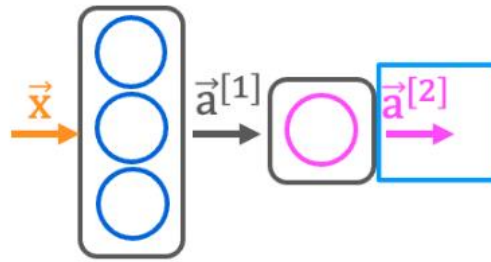
- ☐ 5
- ☐ 25
- ☐ 3
- ☒ 4

✓ **Correct**

Yes! Each call to the "Dense" function defines a layer of the neural network.

2.

1 / 1 point



```
x = np.array([[200.0, 17.0]])
layer_1 = Dense(units=3, activation='sigmoid')
a1 = layer_1(x)
```

```
layer_2 = Dense(units=1, activation='sigmoid')
a2 = layer_2(a1)
```

How do you define the second layer of a neural network that has 4 neurons and a sigmoid activation?

- ☐ Dense(units=4, activation='sigmoid')
- ☐ Dense(layer=2, units=4, activation = 'sigmoid')
- ☒ Dense(units=4, activation='sigmoid')
- ☐ Dense(units=4)

✓ Correct

Yes! This will have 4 neurons and a sigmoid activation.

3.

1 / 1 point

## Feature vectors

| temperature<br>(Celsius) | duration<br>(minutes) | Good coffee?<br>(1/0) |
|--------------------------|-----------------------|-----------------------|
| 200.0                    | 17.0                  | 1                     |
| 425.0                    | 18.5                  | 0                     |
| ...                      | ...                   | ...                   |

```
x = np.array([[200.0, 17.0]])
[[200.0, 17.0]]
```

If the input features are temperature (in Celsius) and duration (in minutes), how do you write the code for the first feature vector  $x$  shown above?

- ☐ `x = np.array(['200.0', '17.0'])`
- ☒ `x = np.array([200.0, 17.0])`
- ☐ `x = np.array([200.0 + 17.0])`
- ☐ `x = np.array([200.0],[17.0])`

✓ Correct

Yes! A row contains all the features of a training example. Each column is a feature.