

## ✔ Congratulations! You passed!

Grade  
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To pass 80% or  
higher

Go to next item

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?

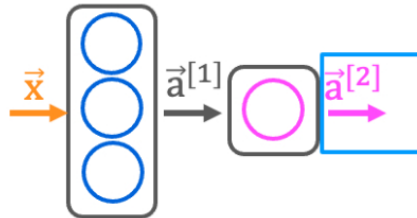
- ☐ 3
- ☐ 25
- ☐ 5
- ☒ 4

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

✔ 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                     |

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

|       |      |     |
|-------|------|-----|
| 425.0 | 18.5 | 0   |
| xxx   | xxx  | xxx |

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.