

AdvancedLearningAlgorithms - WEEK 1 - QUIZ 3

Link: [AdvancedLearningAlgorithms - WEEK 1 - QUIZ 3](#)

Your grade: 100%

Your latest: 100% • Your highest: 100% • To pass you need at least 80%. We keep your highest score.

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?

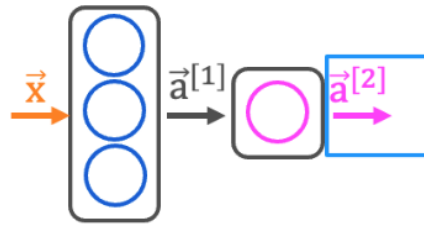
- ☐ 25
- ☒ 4
- ☐ 3
- ☐ 5



Correct

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

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)
```

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



Correct

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

Feature vectors

temperature (Celsius)	duration (minutes)	Good coffee? (1/0)	<code>x = np.array([[200.0, 17.0]])</code> <code>[[200.0, 17.0]]</code>
200.0	17.0	1	
425.0	18.5	0	
...	

3. 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.