Unit 9: Quiz

Due Apr 16 at 11:59pm **Points** 6 **Questions** 6
Available until Apr 17 at 2:59am **Time Limit** 60 Minutes

This quiz was locked Apr 17 at 2:59am.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	1 minute	5 out of 6

Score for this quiz: **5** out of 6
Submitted Apr 16 at 10:48pm
This attempt took 1 minute.

Question 1

1 / 1 pts

Which of the following created the first image classification application that classified images with at least 80% accuracy?

- Oxford
- MSRA
- Google

Correct!

- AlexNet

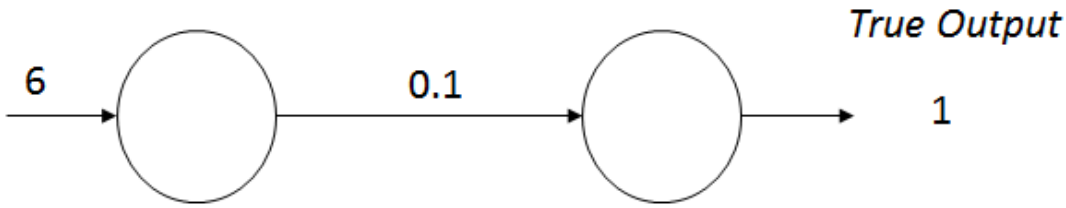
Correct! AlexNet created the first image classification application that classified images with at least 80% accuracy.

Question 2

1 / 1 pts

The figure below shows a simple neural network. An observation with one variable is presented to the network as shown. What is the updated weight if linear function y=x is used as the activation function and the Mean Squared Error as the error function?

$$Mean\ Squared\ Error\ = (y - \hat{y})^2$$



- 0.16
- Correct! 1.06

Correct! The updated weight from the neural network is 1.06.

- 1.28
- 0.38

Question 3

1 / 1 pts

Which of the following is true for the Perceptron neural network architecture?

- Correct! Each neuron is connected to all of the inputs.

Correct! In the Perceptron neural network architecture, each neuron is connected to all of the inputs.

- A bias feature is added to the output neuron only.

The output error is always less than 0.5.

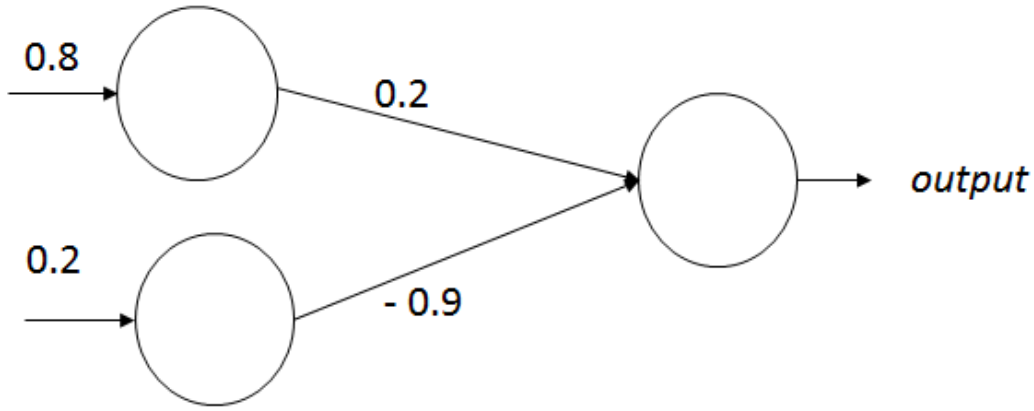
The output is always greater than zero.

Question 4

0 / 1 pts

The figure below shows a simple neural network. An observation with two variables (0.8, 0.2) is presented to the network as shown. What is the predicted output from the neural network using a tanh activation function?

$$tanh(x) = \frac{e^x - e^{-x}}{e^x + e^{-x}}$$



$\frac{e^{0.2}-e^{-0.2}}{e^{0.2}+e^{-0.2}}$

$\frac{e^{-0.2}-e^{-0.2}}{e^{-0.2}+e^{-0.2}}$

ou Answered

$\frac{e^{-0.02}-e^{-0.02}}{e^{0.02}+e^{-0.02}}$

Incorrect. The predicted output from the neural network using a tanh activation function is not $\frac{e^{-0.02}-e^{-0.02}}{e^{0.02}+e^{-0.02}}$. Calculate the value of $\sum_i w_i x_i$. Then use the tanh function.

orrect Answer

- $\frac{e^{-0.02}-e^{0.02}}{e^{-0.02}+e^{0.02}}$

Question 5

1 / 1 pts

Which of the following is NOT true for pooling in CNNs?

- It is a method of reducing the number of features for the next layer.
- It is a method for increasing the number of features for the next layer. (Correct!)

Correct! The purpose of pooling is not to increase the number of features.

- It is a method of feature extraction.
- It is a method of summarizing neighboring feature detectors.

Question 6

1 / 1 pts

How many pooling layers does LeNet architecture have?

- 4
- 2 (Correct!)
- 6
- 8

Quiz Score: **5** out of 6