10/5/21, 9:44 AM Quiz: Quiz 5

## Quiz 5

(!) This is a preview of the published version of the quiz

Started: Oct 5 at 9:44am

## **Quiz Instructions**

You will have 30 minutes to complete this guiz once you start. You will have 2 attempts to deal with any potential technical difficulties you may have.

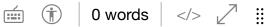
**Question 1** 2 pts True/False: The perceptron algorithm will always converge. Briefly explain. Edit View Insert Format Tools Table 12pt  $\vee$  Paragraph  $\vee$  B I  $\cup$   $\triangle$   $\vee$   $\nearrow$   $\vee$ р

True/False: The ordering of training samples has no effect on the output of the perceptron algorithm. Briefly explain.

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**Question 2** 





2 pts

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> **Question 3** 2 pts

What is the function of b in the perceptron model (a = wx + b)?

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(iii) 0 words | </> ✓ iii

**Question 4** 4 pts

Give the weights and bias for a perceptron that perfectly solves the logical AND problem. That is, it perfectly separates the binary data below (which represents the AND function). Note that I did not ask you to give the results of running the perceptron algorithm.

x_1	x_2	у
-1	-1	-1
-1	1	-1
1	-1	-1
1	1	1

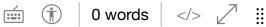
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Quiz saved at 9:44am

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