1/20/2021 Quiz: 422 Quiz 5



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

Started: Jan 20 at 5:27pm

## **Quiz Instructions**

This quiz will cover the perceptron. This quiz will take 10-15 minutes to complete. You have been given 30 minutes in case of technical difficulties. The questions are set up as essay questions so you can type into the box, use equations, and upload images directly into the essay.

Question 1	5 pts

Run the perceptron algorithm on the following data and give the final weights and bias.

#	$x_1$	$x_2$	y
1	-1	-1	-1
2	-1	1	-1
3	1	-1	-1
4	1	1	1

# just indicates the sample number.  $oldsymbol{x_1}$  and  $oldsymbol{x_2}$  are the features and  $oldsymbol{y}$  is the label.

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This Quiz Will Be Submitted In Thirty Minutes

p









**Question 2** 5 pts

Given a trained perceptron with  $w=egin{pmatrix}1\\-2\\3\end{pmatrix}$  and b=-1, which of the following points lies on the decision boundary?

- 1. (-5,0,2)
- 2.(3,2,-1)
- 3. (-1, 2, 2)
- 4.(1,1,1)
- 5. (3, -5, 2)

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