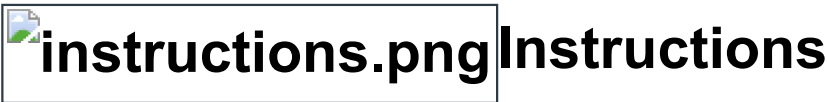


Week 3 Quiz

Due Feb 8 at 11:59pm	Points 12	Questions 3
Available after Feb 2 at 12am	Time Limit 20 Minutes	Allowed Attempts 2

Instructions



This quiz consists of two questions. To be successful with the module quizzes, it's important to read the assigned chapters, practice exercises, and complete the interactive activities. Keep the following in mind:

- **Attempts:** You will have two attempts for this quiz with your highest score being recorded in the grade book.
- **Timing:** You will need to complete each of your attempts in one sitting, and you are allotted 20 minutes to complete each attempt.
- **Answers:** You may review your answer choices and compare them to the correct answers after your final attempt.

To start, click the "Take the Quiz" button. When finished, click the "Submit Quiz" button.



Need help using Canvas Quizzes? If so, please review the following guide: **Canvas Student Guide - Quizzes** (https://community.canvaslms.com/docs/DOC-10701#jive_content_id_Quizzes)

Take the Quiz Again

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	less than 1 minute	12 out of 12

Attempt**Time****Score**Score for this attempt: **12** out of 12

Submitted Feb 3 at 2:39pm

This attempt took less than 1 minute.

Question 1**4 / 4 pts**

With an appropriate learning rate and sufficient high-quality training data set, will the Gradient Descent algorithm for logistic regression (with cross-entropy loss function) **always** converge to a global optimum?

☐ No☐ It depends.☒ Yes**Correct!****Question 2****4 / 4 pts**

Does a logistic regression model (with cross-entropy loss function) have a closed form solution (i.e., normal equation)?

☒ No☐ Yes☐ It depends.**Correct!****Question 3****4 / 4 pts**

Which of the following statements on the Receiver Operator Characteristic (ROC) curve is NOT true?



A ROC curve plots the true positive rate (TPR) against the false positive rate (FPR) of a binary classifier.



We can measure the performance of an N-class classifier by drawing N ROC curves using the one-versus-the-rest approach.



A high area under the curve (AUC) of ROC means a classifier is good at distinguishing positive classes from negative classes.

Correct!



When a ROC curve is close to the straight line $y = x$ (y means TPR, x FPR), it indicates a good performance of a classifier.

Quiz Score: **12** out of 12