

# Week 9 Quiz

---

**Due** Apr 12 at 11:59pm**Points** 12**Questions** 3**Available** Apr 6 at 12am - Apr 12 at 11:59pm**Time Limit** 15 Minutes**Allowed Attempts** 2

---

## Instructions



This quiz consists of three 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 15 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 \(https://community.canvaslms.com/docs/DOC-10701#jive\\_content\\_id\\_Quizzes\)](https://community.canvaslms.com/docs/DOC-10701#jive_content_id_Quizzes)**

This quiz was locked Apr 12 at 11:59pm.

## Attempt History

	Attempt	Time	Score
LATEST	<a href="#">Attempt 1</a>	6 minutes	12 out of 12

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

Submitted Apr 11 at 4:07pm

This attempt took 6 minutes.

### Question 1

4 / 4 pts

The more interactions we use to we train a neural network, the less overfitting the model has. Is this statement true or false?

Correct!

☒ False

☐ True

### Question 2

4 / 4 pts

Given hypothesis  $h$ , target function  $f$ , data sample  $S$ , and distribution of data  $D$ , we can define true error  $error_D(h)$  and sample error  $error_S(h)$  according to this module. Which of the following statements is true?

Correct!

☒ Sample error is unbiased estimation of true error when  $h$  and  $S$  are chosen independently.

☐ Sample error is unbiased estimation of true error.

☐ Sample error does not vary from true error.

☐ Sample error equals true error.

**Question 3****4 / 4 pts**

Consider a learned hypothesis,  $h$ , for some Boolean concept. When  $h$  is tested on a set of 100 examples, it classifies 83 correctly. What is the standard deviation (SD) and the 95% confidence interval (CI) for the true error rate for  $ErrorD(h)$ ? Please choose the closest answer.

☐ SD = 0.2751; CI = [0.125, 0.375]

☐ SD = 0.1372; CI = [0.123, 0.282]

☐ SD = 0.0632; CI = [0.051, 0.276]

☒ SD = 0.0376; CI = [0.096, 0.244]

**Correct!****Quiz Score: 12 out of 12**