Feedback — Quiz 1

Help Center

Thank you. Your submission for this quiz was received.

You submitted this quiz on **Sun 10 May 2015 4:30 AM PDT**. You got a score of **12.00** out of **15.00**. You can attempt again, if you'd like.

Question 1

Which of the following are steps in building a machine learning algorithm?

Your Answer		Score	Explanation
○ Creating features.			
○ Data mining			
◉ Statistical inference	✖	0.00	
○ Machine learning			
Total		0.00 / 3.00	

Question 2

Suppose we build a prediction algorithm on a data set and it is 100% accurate on that data set.

Why might the algorithm not work well if we collect a new data set?

Your Answer	Score	Explanation
○ We may be using bad variables that don't explain the outcome.v		
○ We have too few predictors to get good out of sample accuracy.		

We may be using a bad algorithm that doesn't predict well on this kind of data.		
Our algorithm may be overfitting the training data, predicting both the signal and the noise.	✔	3.00
Total		3.00 / 3.00

Question 3

What are typical sizes for the training and test sets?

Your Answer		Score	Explanation
10% test set, 90% training set			
60% in the training set, 40% in the testing set.	✔	3.00	
90% training set, 10% test set			
80% training set, 20% test set			
Total		3.00 / 3.00	

Question 4

What are some common error rates for predicting binary variables (i.e. variables with two possible values like yes/no, disease/normal, clicked/didn't click)?

Your Answer		Score	Explanation
Root mean squared error			
Median absolute deviation			
Accuracy	✔	3.00	
R^2			

Total	3.00 / 3.00

Question 5

Suppose that we have created a machine learning algorithm that predicts whether a link will be clicked with 99% sensitivity and 99% specificity. The rate the link is clicked is 1/1000 of visits to a website. If we predict the link will be clicked on a specific visit, what is the probability it will actually be clicked?

Your Answer		Score	Explanation
○ 99%			
◉ 9%	✔	3.00	
○ 50%			
○ 90%			
Total		3.00 / 3.00	