Feedback — Quiz 1

Help

You submitted this quiz on **Fri 6 Jun 2014 11:19 AM PDT**. You got a score of **15.00** out of **15.00**.

Question 1

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

Your Answer		Score	Explanation
◉ Asking the right question.	✔	3.00	
○ Training and test sets			
○ Data mining			
○ Machine learning			
Total		3.00 / 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 are not asking a relevant question that can be answered with machine learning.			
○ We have used neural networks which has notoriously bad performance.			
○ We have too few predictors to get good out of sample accuracy.			
◉ 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
0% training set, 100% test set.			
10% test set, 90% training set			
20% test set, 80% training set.			
60% in the training set, 40% in the testing set.	✔	3.00	
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
Sensitivity	✔	3.00	
Correlation			
Median absolute deviation			
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
◉ 9%	✔	3.00	
○ 89.9%			
○ 0.009%			
○ 90%			
Total		3.00 / 3.00	