Feedback — Quiz 1

Thank you. Your submission for this quiz was received.

You submitted this quiz on **Mon 10 Aug 2015 1:35 PM SGT**. 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
⚪ Machine learning			
⦿ Creating features.	✔	3.00	
⚪ Training and test sets			
⚪ Artificial intelligence			
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.			
⦿ Our algorithm may be overfitting the training data, predicting both the signal and the noise.	✔	3.00	
⚪ We may be using bad variables that don't explain the outcome.v			
⚪ We may be using a bad algorithm that doesn't predict well on this kind of data.			

| Total | 3.00 / 3.00 |

Question 3

What are typical sizes for the training and test sets?

Your Answer		Score	Explanation
⚪ 100% training set, 0% test set.			
⚪ 20% test set, 80% training set.			
🔘 60% in the training set, 40% in the testing set.	✔	3.00	
⚪ 10% test set, 90% training 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
⚪ R^2			
⚪ Correlation			
⚪ P-values			
🔘 Sensitivity	✔	3.00	
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%			
○ 0.009%			
◉ 9%	✔	3.00	
○ 90%			
Total		3.00 / 3.00	