Feedback - Week 4

Help

You submitted this quiz on **Sun 20 Oct 2013 7:58 PM PDT (UTC -0700)**. You got a score of **9.00** out of **10.00**. You can attempt again, if you'd like.

Salary can be influenced by many variables. Among these, years of professional experience and total courses completed in college are critical. This week we test this hypothesis with a simulated dataset including an outcome variable, salary, and two predictors, years of experience and courses completed. Here are a few questions based on what was covered in the lectures and the lab. Have fun!

Question 1

What is the correlation between salary and years of professional experience?

You entered:

0.74

Your Answer		Score	Explanation
0.74	~	1.00	
Total		1.00 / 1.00	

Question Explanation

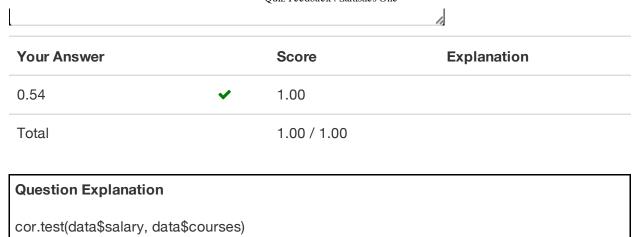
cor.test(data\$salary, data\$years)

Question 2

What is the correlation between salary and courses completed?

You entered:

0.54



Question 3

What is the percentage of variance explained in a regression model with salary as the outcome variable and professional experience as the predictor variable?

You entered:

55

Your Answer		Score	Explanation
55	~	1.00	
Total		1.00 / 1.00	

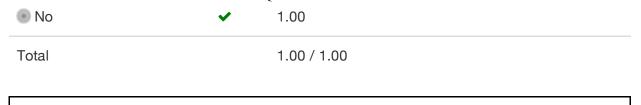
Question Explanation

summary(model1 = Im(data\$salary ~ data\$years))

Question 4

Compared to the model from Question 3, would a regression model predicting salary from the number of courses be considered a better fit to the data?

Your Answer	Score	Explanation
Yes		



Question Explanation

summary(model2 = Im(data\$salary ~ data\$courses))

Question 5

Now let's include both predictors (years of professional experience and courses completed) in a regression model with salary as the outcome. Now what is the percentage of variance explained?

You entered:

65

Your Answer		Score	Explanation
65	~	1.00	
Total		1.00 / 1.00	

Question Explanation

summary(model3 = Im(data\$salary ~ data\$years + data\$courses))

Question 6

What is the standardized regression coefficient for years of professional experience, predicting salary?

You entered:

0.74

Your Answer Score Explanation

0.74	✓	1.00
Total		1.00 / 1.00

Question 7

What is the standardized regression coefficient for courses completed, predicting salary?

You entered:

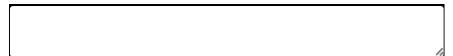
0.54

Your Answer		Score	Explanation
0.54	~	1.00	
Total		1.00 / 1.00	

Question 8

What is the mean of the salary distribution predicted by the model including both years of professional experience and courses completed as predictors? (with 0 decimal places)

You entered:



Your Answer		Score	Explanation
	×	0.00	
Total		0.00 / 1.00	

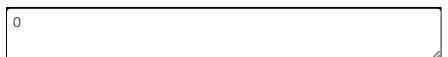
Question Explanation

data.predicted = fitted(model3) AND mean(data.predicted)

Question 9

What is the mean of the residual distribution for the model predicting salary from both years of professional experience and courses completed? (with 0 decimal places)

You entered:



Your Answer		Score	Explanation
0	~	1.00	
Total		1.00 / 1.00	

Question Explanation

data.error = resid(model3) AND mean(data.error)

Question 10

Are the residuals from the regression model with both predictors normally distributed?

Your Answer		Score	Explanation
Yes	~	1.00	
No			
Total		1.00 / 1.00	

Question Explanation

hist(data.error)