Question 3

The tables below show the regression output of a multiple regression model relating the beginning salaries in dollars of employees in a given company to the following predictor variables:

ANOVA Table				
Source	**Sum of Squares**	**df**	**Mean Square**	***F-Test***
Regression	23665352	4	5916338	22.98
Residuals	22657938	88	257477	

Coefficients Table				
Variable	**Coefficient**	**s.e.**	***t*-test**	***p*-value**
Constant	3526.4	327.7	10.76	0.000
Gender	722.5	117.8	6.13	0.000
Education	90.02	24.69	3.65	0.000
Experience	1.269	0.5877	2.16	0.034
Months	23.406	5.201	4.5	0.000
n=93	R^2=0.515	R_α^2=0.489	σ-hat=507.4	df=88

Gender	An indicator variable (1=man and 0=woman)
Education	Years of schooling at the time of hire
Experience	Number of months of previous work experience
Months	Number of months with the company

(1/2 points)

3a. What is the F-statistic for the overall fit of the regression (at a .05 level of significance)?

Pre-Lab due May 03, 2016 at 17:00 UTC

Lab
Lab due May 03, 2016 at 17:00 UTC

Problem Set
Problem Set due May 03, 2016 at 17:00 UTC

2.475277 ✖

Answer: 22.98

2.475277

3b. We should

reject ▾ ✔ **Answer:** reject the null hypothesis.

You have used 1 of 1 submissions

(1/1 point)

3c. Is there a positive linear relationship between Salary and Experience, after accounting for the effect of the variables of Gender, Education, and Months?

Yes ▾ ✔

You have used 1 of 1 submissions

(2/2 points)

3d. What salary would you forecast for a man with 12 years of education, 10 months of experience, and 15 months with the company? (Round to the nearest dollar - whole number.)

5693 ✔

Answer: 5693

5693

3e. What salary would you forecast for a woman with 12 years of education, 10 months of experience, and 15 months with the company? (Round to the nearest dollar - whole number.)

4970 ✔

Answer: 4970

4970

You have used 1 of 1 submissions


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