

Interval Estimates Assignment

Print Your Name

Use the regression model for Part 1 of Assignment 1 to do the following.

Turn in this answer sheet and attach clearly labeled work.

1. Test $H_0 : \beta_1 = 0$ against $H_1 : \beta_1 > 0$ at the 5% significance level

ANSWER: Calculated t = _____ Critical t = _____ Reject Ho? (Yes or No) _____

2. Find a 95% two sided confidence interval for β_1

ANSWER: We can be 95% confident that β_1 is above _____ satisfaction points per year but below _____ satisfaction points per year..

3. Find a 95% confidence interval for the average job satisfaction of the group of all past present & future employees whose education is 12 years.

ANSWER: We can be 95% confident that the average job satisfaction of the group of all past present & future employees whose education is 12 years is above _____ satisfaction points but below _____ satisfaction points.

4. Find a 95% confidence interval for the average job satisfaction of the group of all past present & future employees whose education is 18 years.

ANSWER: We can be 95% confident that the average job satisfaction of the group of all past present & future employees whose education is 18 years is above _____ satisfaction points but below _____ satisfaction points.

5. Find a 95% prediction interval for the job satisfaction of the "next" individual employee whose education is 12 years,

ANSWER: We can be 95% confident that the job satisfaction of the "next" individual employee whose education is 12 years is above _____ satisfaction points but below _____ satisfaction points.

6. Find a 95% prediction interval for the job satisfaction of the "next" individual employee whose education is 18 years,

ANSWER: We can be 95% confident that the job satisfaction of the "next" individual employee whose education is 12 years is above _____ satisfaction points but below _____ satisfaction points.

7. What is the p-value for testing the null hypothesis that there is zero correlation between education and job satisfaction?

ANSWER: The p-value is _____.

8. Do an F test for the model as a whole. Let $\alpha=.05$

ANSWER: Calculated F= _____ Critical F = _____ Reject Ho? (Yes or No) _____