Getting Familiar with Regression Output - Quiz

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Question 1

1/1 point (graded)

True or False: R^2 is the estimated standard deviation of an estimator.

- a. True
- b. False ✔

Explanation

False, the standard error is the estimated standard deviation of an estimator. Regression output will generally give you standard errors for your estimators. These values are a measure of the accuracy of predictions made with the corresponding estimators for the coefficients in the regression.

R^2 on the other hand is a basic measure of goodness of fit. Recall the formula for R^2 is:
$1 - SSR/SST$

Submit You have used 1 of 1 attempt

✔ Correct (1/1 point)

Question 2

1/1 point (graded)

Suppose you get the following R output:

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept) -1.030e+01  1.191e+00  -8.651   <2e-16 ***
GenderM     -1.355e+01  1.587e+00  -8.536   <2e-16 ***
Year         5.144e-03  5.920e-04   8.689   <2e-16 ***
GenderM:Year 6.766e-03  7.891e-04   8.575   <2e-16 ***
```

Which of the following values corresponds to $\hat{\beta}_0$?

- a. -8.651

The Multivariate Linear Model
due Nov 28, 2016 05:00 IST

Module 9: Homework
due Nov 21, 2016 05:00 IST

- Module 10: Practical Issues in Running Regressions, and Omitted Variable Bias
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b. 6.766e-03

c. -1.030e+01 ✔

d. 7.891e-04

Explanation

The "Estimate" value for "(Intercept)" is the estimate of the y-intercept, $\hat{\beta}_0$.

Submit You have used 1 of 2 attempts

✔ Correct (1/1 point)

Question 3

1/1 point (graded)

Which of the following values corresponds to the standard error for $\hat{\beta}_1$, where β_1 is the estimate for coefficient on the Year random variable?

a. 1.191e+00

b. 8.689

c. 2e-16

d. 5.920e-4 ✔

Explanation
The regression output gives you a standard error for the estimator for each coefficient. Standard error is a measurement of the accuracy of predictions made with the estimator and is generally abbreviated to “Std. Err.” in regression outputs.

Submit You have used 1 of 2 attempts

✔ Correct (1/1 point)

Discussion
Topic: Module 9 / Getting Familiar with Regression Output - Quiz

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