

Computer Printouts

Regression Analysis: Fat gain versus NEA change				
Predictor	Coef	SE Coef	T	P
Constant	3.5051	0.3036	11.54	0.000
NEA Change	-0.0034415	0.0007414	-4.64	0.000

S = 0.739853 R-Sq = 60.6% R-Sq(adj) = 57.8%

The Constant shows the y-intercept. The value of the constant is 3.5051

The NEA Change is the input (explanatory variable) and is multiplied by the slope.

So then the slope is -0.0034415.

The slope is the test statistic. Next to the slope is the SE Coef. Which represents the standard deviation of the slope.

So the standard deviation of the slope is 0.0007414.

--- Confidence Interval ---

t has $(n - 2)$ degrees of freedom.

Use the App to find the t -value based on the area between the values and the degrees of freedom.

Formula for error is the $t \cdot (\text{Standard Deviation of the slope})$

Interval is slope \pm error

--- Significance Test ---

The computer printout runs a test with H_0 slope = 0

With this test, use the T and P column next to the slope variable.

The T shows the standard measure of how far the sample slope is from zero.

The P value shows the probability of obtaining the sample slope, if the slope were truly zero.

Significance is reached when the P-value is less than 0.05

NOTE: the variable S in the printout above is the standard error of the residuals. This is the standard deviation of the residuals, which tells the average distance away from the line the data values fall.

Lesson 71 HW A: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21-26