

Economics 311
Daily Problem #4

Fall 2017
September 11

Suppose that we run a regression on the equation $Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i$. The estimated coefficient $\hat{\beta}_1$ is exactly zero and the estimated constant term $\hat{\beta}_0$ is 15.

1. What is the mean of Y and how do you know?
2. What is $\hat{Y}_i$? (Hint: It's the same value for every i .)
3. What is the R^2 coefficient in this regression and how do you know? (Use the formula.)
4. Is $\bar{R}^2$ positive or negative for this regression? How do you know? (Use the formula.)