

Class Exercise

Consider the following table reporting data for four observations with an outcome variable y and an explanatory variable x :

y	x
-0.25	8
0.3	9
0.5	12
0.25	11

1. Mathematically estimate the relationship between y and x using OLS and obtain the intercept and slope estimates for the equation

$$\hat{y} = \hat{\beta}_0 + \hat{\beta}_1 x$$

2. Put this data into Stata and write a .do file that provides the same estimates.

Choose one of the following (or we can divide tasks):

3a. Drop the first observation and recalculate your slope and intercept estimates. How have they changed?

OR

3b. Include a new observation where $y = -0.22$ and $x = 15$. Recalculate your slope and intercept estimates. How have they changed?