

Economics 311
Daily Problem #7

Fall 2017
September 22

Explain what Studenmund means by each of the following sentences (my emphasis in some cases):

- a. "The error term must be an *additive* one and cannot be multiplied by or divided into any of the variables in the equation." (p. 94.)
- b. "In essence, the constant term equals the *fixed* portion of Y that cannot be explained by the independent variables, and the error term equals the *stochastic* portion of the unexplained value of Y ." (p. 95.)
- c. "If an explanatory variable and the error term were instead *correlated* with each other, the OLS estimates would be likely to attribute to the X some of the variation in Y that actually came from the error term." (p. 95)
- d. "Because every movement of one of the variables is matched exactly by a relative movement in the other, the OLS estimation procedure will be incapable of distinguishing [the effects of] one variable from the other." (p. 98)