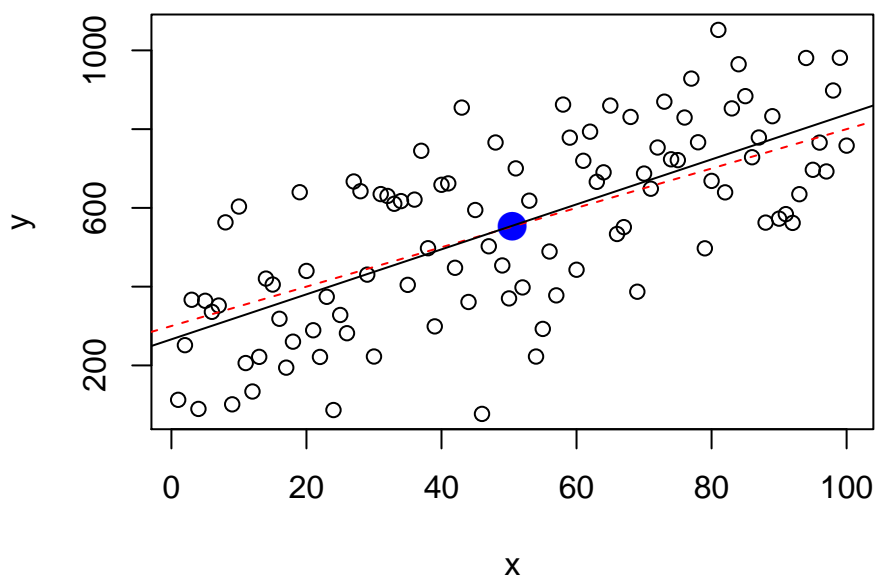


Homework 1

Clark Fitzgerald
Stats 206

2. True / False

- a **True** The least squares line always passes the center of the data. This is implied by the calculation for $\hat{\beta}_0 = \bar{Y} - \hat{\beta}_1 \bar{X}$. The large point in the below plot is the center of the data.



- b **False** The least squares line fits the data best by definition. In the figure above the fitted regression line is the solid line, while the true regression line is the dashed line. They are not the same.