## I. Least-Squares Line (p.554):

the line which "best fits" the points in a scatter diagram is given by the equation...

where, 
$$\mathbf{a} = \mathbf{y} - \mathbf{b}\mathbf{x}$$

and
$$\mathbf{b} = \frac{\mathbf{n} \cdot \sum_{i=1}^{n} \mathbf{x}_{i} \cdot \mathbf{y}_{i} - \left(\sum_{i=1}^{n} \mathbf{x}_{i}\right) \left(\sum_{i=1}^{n} \mathbf{y}_{i}\right)}{\mathbf{n} \cdot \sum_{i=1}^{n} \mathbf{x}_{i}^{2} - \left(\sum_{i=1}^{n} \mathbf{x}_{i}\right)^{2}}$$

explanatory variable

II. Examples (pp.566-567): #8acdf, 10acdf

HW: pp.564-567 / #1,3,7,9,11,13

Final Exam: Tuesday, December 17<sup>th</sup> 2:00 p.m. – 4:00 p.m.