

Quiz 3: *Formulas*

- Sample Proportion:

$$\hat{p} = \frac{\text{number of successes}}{\text{number of trials}}$$

- Sample Standard Deviation:

$$s = \sqrt{\frac{1}{n-1} \sum_{i=1}^n (x_i - \bar{x})^2}$$

or

$$s = \sqrt{\frac{1}{n-1} \left(\left[\sum_{i=1}^n x_i^2 \right] - n \bar{x}^2 \right)}$$

- Correlation Coefficient:

$$r = \frac{1}{(n-1) s_x s_y} \left[\sum_{i=1}^n y_i x_i - n(\bar{x}\bar{y}) \right]$$

- You do not need to know the formula for b_1 that is given in the book. Just the one we discussed in the lectures.