

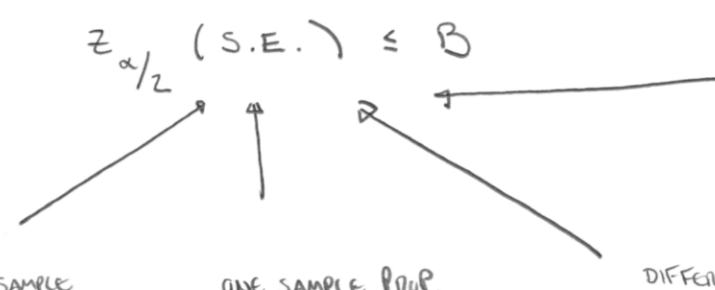
# § 8.9 CHOOSING THE SAMPLE SIZE

PICK A BOUND  $B$  FOR THE ERROR OF YOUR ESTIMATE,  
AND A CONFIDENCE COEFFICIENT  $(1-\alpha)$ .

SOLVE FOR  $n$ :

IF YOU DON'T KNOW  
 $p_1, p_2$ , USE  
 $p_1 = p_2 = .5$

USE  $\sigma \approx \frac{\text{RANGE}}{4}$   
IF  $\sigma$  IS UNKNOWN



DIFFERENCE OF PROP.'S  
 $\sqrt{\frac{\hat{p}_1 \hat{q}_1}{n} + \frac{\hat{p}_2 \hat{q}_2}{n}}$   
(SET  $n_1 = n_2$ )

ONE SAMPLE  
 $\frac{\sigma}{\sqrt{n}} \approx \frac{s}{\sqrt{n}}$

ONE SAMPLE PROP.  
 $\sqrt{\frac{p\hat{q}}{n}} \approx \sqrt{\frac{\hat{p}\hat{q}}{n}}$

DIFFERENCE OF MEANS  
 $\sqrt{\frac{\sigma_1^2}{n} + \frac{\sigma_2^2}{n}} \approx \sqrt{\frac{s_1^2}{n} + \frac{s_2^2}{n}}$

ex. #79, 73, 77,