

Please check homework with someone. Write the number of any problem problems on the board.

$$\textcircled{50} \quad 95\% \rightarrow z^* = 1.96$$

$$\hat{p} = \frac{317}{400} \quad \sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$$

$$\text{Margin of error} = z^* \sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$$

$$1.96 \sqrt{\frac{\frac{317}{400} \cdot \frac{83}{400}}{400}}$$

$$0.03974 \rightarrow 0.04$$

Ch. 8 Test Friday

Random-SRS

Normal - $775 > 10$ ✓

$325 > 10$ ✓

Independence - The small enough ($< 10\%$ of population) ✓

$$z^* = 1.96$$

$$\text{standard error} = \sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$$

$$\sqrt{\frac{\frac{775}{1100} \cdot \frac{325}{1100}}{1100}} \rightarrow \approx 0.0137$$

$$\left(\frac{775}{1100}\right) \pm 1.96(.0137)$$

$$(0.6676, 0.7315)$$

estimate \pm ME of \hat{p}

$$z^* \text{ standard error} = 0.02$$

$$1.96 \sqrt{\frac{\hat{p}(1-\hat{p})}{n}} = 0.02$$

Assume \hat{p} is $\frac{775}{1100} = 0.705$

$$n \geq 1998$$