

2.

$$\frac{2000}{x_1 = 20}$$

$$n_1 = 500$$

$$\frac{2012}{x_2 = 45}$$

$$n_2 = 800$$

$$\hat{p}_1 = \frac{x_1}{n_1} = \frac{20}{500} = .04$$

$$\hat{p}_2 = \frac{x_2}{n_2} = \frac{45}{800} = .05625$$

$$\hat{p} = \frac{x_1 + x_2}{n_1 + n_2}$$

$$\hat{p} = \frac{20 + 45}{500 + 800}$$

$$\hat{p} = .05$$

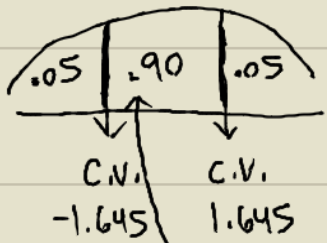
$$\alpha = 0.10$$

CLASSICAL (TI-83/84)

CLAIM: p_1 DIFF THAN p_2

$H_0: p_1 = p_2$

$H_1: p_1 \neq p_2$



$INVNorm(.05) = -1.645$

$INVNorm(.95) = 1.645$

TS: 2 PROPZTEST

$Z = -1.31$

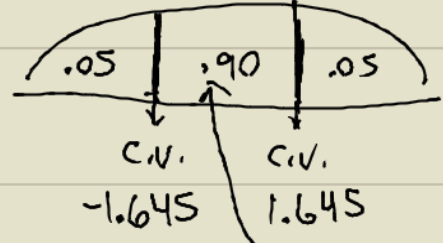
CONC: ACCEPT H_0
REJECT H_1
REJECT CLAIM

CLASSICAL (BY HAND)

CLAIM: p_1 DIFF THAN p_2

$H_0: p_1 = p_2$

$H_1: p_1 \neq p_2$



T.S.

$$Z_0 = \frac{\hat{p}_1 - \hat{p}_2}{\sqrt{\hat{p}(1-\hat{p})} \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$Z_0 = .04 - .05625$

$$\sqrt{.05(1-.05)} \sqrt{\frac{1}{500} + \frac{1}{800}}$$

$Z_0 = -1.31$

CONC: ACCEPT H_0 , REJECT H_1 , REJECT CLAIM

P-VALUE (TI-83/84)

CLAIM: p_1 DIFF THAN p_2

$H_0: p_1 = p_2$

$H_1: p_1 \neq p_2$



PVALUE: 2 PROPZTEST

$P = .1909$

CONC: ACCEPT H_0 , REJECT H_1
REJECT CLAIM

$\alpha = 0.10$

P-VALUE (BY HAND)

CLAIM: p_1 DIFF THAN p_2

$H_0: p_1 = p_2$

$H_1: p_1 \neq p_2$

$Z_0 = .04 - .05625$

$$\sqrt{.05(1-.05)} \sqrt{\frac{1}{500} + \frac{1}{800}}$$

$Z_0 = -1.31$

VFT = .0951

SO

$P = 2 \text{ VFT}$

$P = 2 (.0951)$

$P = .1902$

CONC:

ACCEPT H_0

REJECT H_1

REJECT CLAIM