

1. CLAIM:  $> .36$

$$X=74 \quad H_0: p \leq .36$$

$$n=200 \quad H_1: p > .36$$

$$\alpha = .05$$



$$Z_0 = \frac{\hat{p} - p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}}$$

$$Z_0 = \frac{\left(\frac{74}{200} - .36\right)}{\sqrt{\frac{.36(1-.36)}{200}}}$$

$$Z_0 = 0.29$$

$$VFT = .6141$$

$$P = 1 - VFT$$

$$P = 1 - .6141$$

$$P = .3859$$

CONC: ACCEPT  $H_0$   
 REJECT  $H_1$   
 REJECT CLAIM

2. CLAIM: SAME AS .74

$$X=410 \quad H_0: p = .74$$

$$n=500 \quad H_1: p \neq .74$$

$$\alpha = 0.10$$



$$Z_0 = \frac{\hat{p} - p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}}$$

$$Z_0 = \frac{\frac{410}{500} - .74}{\sqrt{\frac{.74(1-.74)}{500}}}$$

$$Z_0 = 4.08$$

$$VFT = .9998$$

$$P = 2(1 - .9998)$$

$$P = 4E-4$$

$$P = .0004$$

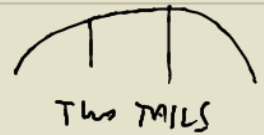
CONC: REJECT  $H_0$   
 ACCEPT  $H_1$   
 REJECT CLAIM

3. CLAIM: DIFF THAN .50

$$X=190 \quad H_0: p = .50$$

$$n=400 \quad H_1: p \neq .50$$

$$\alpha = .01$$



$$Z_0 = \frac{\hat{p} - p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}}$$

$$Z_0 = \frac{\frac{190}{400} - .50}{\sqrt{\frac{.50(1-.50)}{400}}}$$

$$Z_0 = -1$$

$$VFT = 0.1587$$

$$P = 2 VFT$$

$$P = 2(.1587)$$

$$P = .3174$$

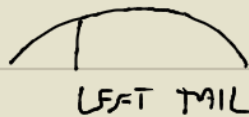
CONC: ACCEPT  $H_0$   
 REJECT  $H_1$   
 REJECT CLAIM

4. CLAIM: LOWER THAN .29

$$X=80 \quad H_0: p \geq .29$$

$$n=500 \quad H_1: p < .29$$

$$\alpha = .05$$



$$Z_0 = \frac{\hat{p} - p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}}$$

$$Z_0 = \frac{\frac{80}{500} - .29}{\sqrt{\frac{.29(1-.29)}{500}}}$$

$$Z_0 = -6.41$$

$$VFT = .0002$$

$$P = .0002$$

CONC: REJECT  $H_0$   
 ACCEPT  $H_1$   
 ACCEPT CLAIM