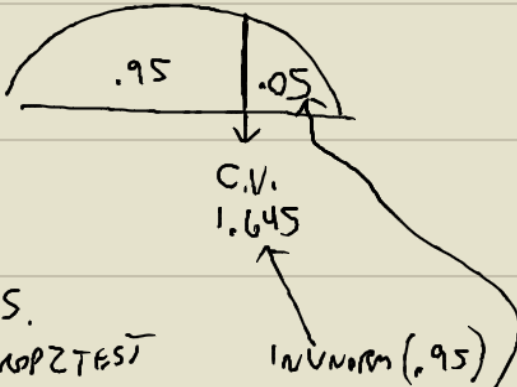


CLASSICAL - TI 83/84

1. CLAIM:  $P_{ZIZAR} > P_{PLACEBO}$   
 $P_1 > P_2$

$H_0: P_1 \leq P_2$

$H_1: P_1 > P_2$



T.S.  
 2-PROPZTEST

$Z = 2.50$

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

ZIZAR  
 $X_1 = 300$   
 $n_1 = 1000$

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PLACEBO  
 $X_2 = 250$   
 $n_2 = 1000$

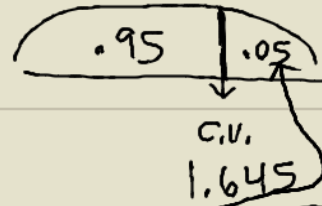
$\alpha = .05$

CLASSICAL - BY HAND

1. CLAIM:  $P_{ZIZAR} > P_{PLACEBO}$   
 $P_1 > P_2$

$H_0: P_1 \leq P_2$

$H_1: P_1 > P_2$



T.S.

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

$$Z_0 = \frac{0.3 - 0.25}{\sqrt{0.275(1-0.275) \left( \frac{1}{1000} + \frac{1}{1000} \right)}}$$

$$Z_0 = 2.50$$

$$\hat{p}_1 = \frac{X_1}{n_1} = \frac{300}{1000} = 0.3$$

$$\hat{p}_2 = \frac{X_2}{n_2} = \frac{250}{1000} = 0.25$$

$$\hat{p} = \frac{X_1 + X_2}{n_1 + n_2} = \frac{300 + 250}{1000 + 1000} = 0.275$$

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

P VALUE APPROACH - TI 83/84

1. CLAIM:  $P_{ZIZAR} > P_{PLACEBO}$   
 $P_1 > P_2$

$H_0: P_1 \leq P_2$

$H_1: P_1 > P_2$

$\alpha = .05$

2 PROPZTEST  $P = .0061$

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

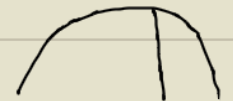
P VALUE APPROACH (BY HAND)

1. CLAIM:  $P_{ZIZAR} > P_{PLACEBO}$   
 $P_1 > P_2$

$H_0: P_1 \leq P_2$

$H_1: P_1 > P_2$

$\alpha = .05$



$$Z_0 = \frac{0.3 - 0.25}{\sqrt{0.275(1-0.275) \left( \frac{1}{1000} + \frac{1}{1000} \right)}} = 2.50$$

VFT = .9938

$P = 1 - VFT$

$P = 1 - .9938$

$P = .0062$

CONC:

REJECT  $H_0$   
 ACCEPT  $H_1$   
 ACCEPT CLAIM