

7-12:

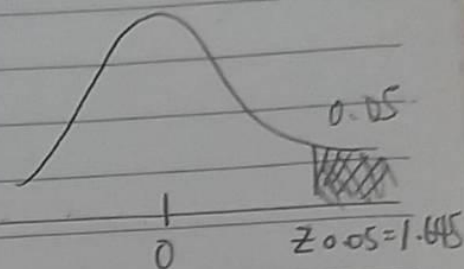
$$\hat{p} = \frac{145}{350} = 0.414$$

(1) $H_0: p \leq 4\%$ $H_1: p > 4\%$

(2) $\alpha = 0.05$

(3) 棄卻域 $C = \{z > z_{0.05}\} = \{z > 1.645\}$

(4) $z = \frac{\hat{p} - p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}} = \frac{0.414 - 0.4}{\sqrt{\frac{0.4(1-0.4)}{350}}} = 0.532$



(無法顯示實際得票率有 $> 4\%$) \Rightarrow 計算 P-值

$$P\text{-值} = P(z > 0.532) = P(z > 0.53) = 1 - 0.7019 = 0.2981 > \alpha$$

\therefore 不棄卻虛無假設

習題 10:

$$C = \{z > z_{0.05}\} = \{z > 1.645\} \quad \alpha = 0.05$$

(1) $H_0: p \leq 0.4$ $H_1: p > 0.4$

(2) $\alpha = 0.05$

(3) 棄卻域 $C = \{z > z_{0.05}\} = \{z > 1.645\}$

(4) 檢定統計量 $z = \frac{\hat{p} - p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}} = \frac{0.45 - 0.4}{\sqrt{\frac{0.4 \cdot 0.6}{100}}} = 1.021$

$\therefore z \notin C \quad \therefore$ 接受 H_0