6.

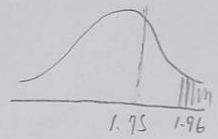
(1) $n=40$ $\alpha=0.05$

$H_0: \mu = 4.3$

$H_1: \mu \neq 4.3$

$z_{0.025} = 1.96$

$$\frac{4.65-4.3}{\frac{1.26}{\sqrt{40}}} = 1.75$$



接受 H_0

(2) $n=80$

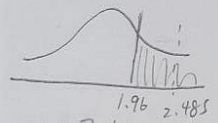
$\alpha=0.05$

$H_0: \mu = 4.3$

$H_1: \mu \neq 4.3$

$z_{0.025} = 1.96$

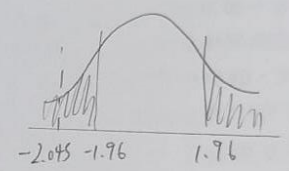
$$\frac{4.65-4.3}{\frac{1.26}{\sqrt{80}}} = 2.485$$



拒絕 H_0

7. $H_0: \mu_1 = \mu_2$ $H_1: \mu_1 \neq \mu_2$ $z_{0.025} = 1.96$

$$\frac{(\bar{x}-\bar{y})-0}{\sqrt{\frac{S_1^2}{n_1}+\frac{S_2^2}{n_2}}} = \frac{38.3-40.1}{\sqrt{\frac{40}{100}+\frac{30}{80}}} = 2.045$$

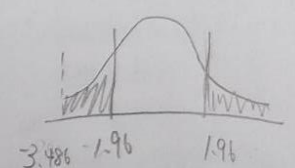


拒絕 H_0

8. $H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

$$S_p = \sqrt{\frac{(n_1-1)S_1^2+(n_2-1)S_2^2}{n_1+n_2-2}} = \sqrt{\frac{63\times3.2^2+80\times3.6^2}{143}} = 3.430$$



$$\frac{(\bar{x}-\bar{y})-0}{S_p\sqrt{\frac{1}{n_1}+\frac{1}{n_2}}} = \frac{32-34}{3.430\sqrt{\frac{1}{64}+\frac{1}{81}}} = 3.486$$

8. $H_0: \mu_1 = \mu_2$ $\quad s_p = \sqrt{\frac{}{n_1+n_2-2}}$

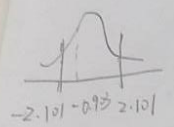
$H_1: \mu_1 \neq \mu_2$

$$\frac{(\bar{x}-\bar{y})-0}{s_p\sqrt{\frac{1}{n_1}+\frac{1}{n_2}}} = \frac{32-34}{3.430\sqrt{\frac{1}{64}+\frac{1}{81}}} = 3.486$$

9. $t_{0.025}(18) = 2.101$

$$s_p = \sqrt{\frac{9\times(4.52\text{b5})^2 + 9\times(6.6575)^2}{18}} = 5.693 \qquad \frac{82.6-84.9}{5.693\sqrt{\frac{1}{10}+\frac{1}{10}}} = 0.903$$

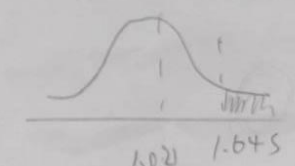
$H_0: \mu_1 = \mu_2$ $\quad H_1: \mu_1 \neq \mu_2$



接受 H_0

10. $z_{0.05} = 1.645$ $\quad H_0: P \leq 0.4$ $\quad H_1: P > 0.4$

$$z = \frac{\hat{P}-P_0}{\sqrt{\frac{P_0(1-P_0)}{n}}} = \frac{0.45-0.4}{\sqrt{\frac{0.4\times0.6}{100}}} = 1.021$$



接受 H_0