5/19 助教賈晉訴

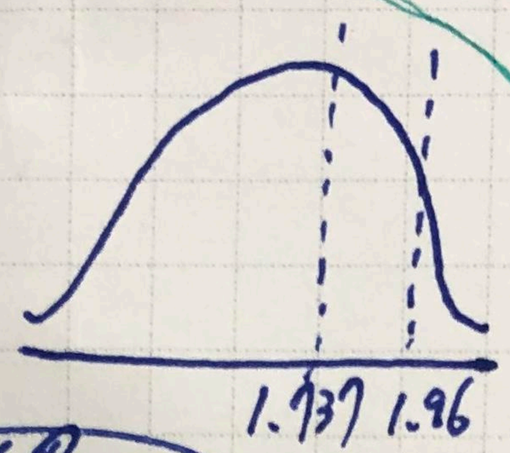
6. $\bar{X}=4.65$ $S=1.26$

a) $n=40$ $\alpha=0.05$

$H_0=M=4.3$ $H_1:M\neq4.3$

$Z_{0.025}=1.96$

$$\frac{4.65-4.3}{\frac{1.26}{\sqrt{40}}}=1.757$$



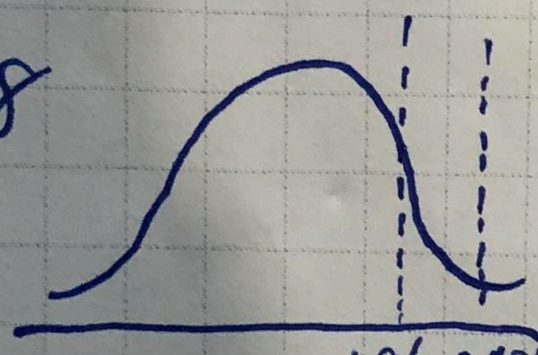
不拒絕

(2) $n=80$ $\alpha=0.05$

$H_0:M=4.3$ $H_1:M\neq4.3$

$Z_{0.025}=1.96$ 拒絕H_0

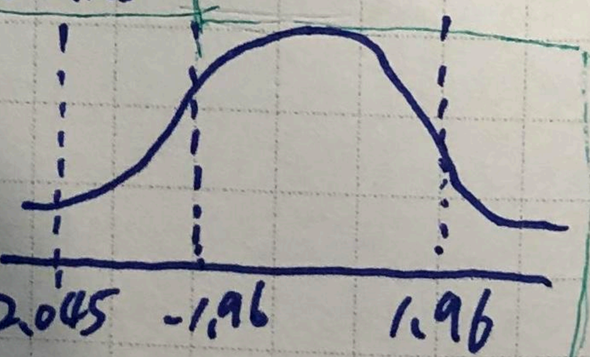
$$\frac{4.65-4.3}{\frac{1.26}{\sqrt{80}}}=2.458$$



7. $H_0=M_1=M_2$ $H_1=M_1\neq M_2$

$Z_{0.025}=1.96$

$$\frac{(\bar{X}-\bar{Y})-0}{\sqrt{\frac{S_1^2}{n_1}+\frac{S_2^2}{n_2}}}=\frac{38.7-40.1}{\sqrt{\frac{40}{100}+\frac{30}{80}}}=2.045$$

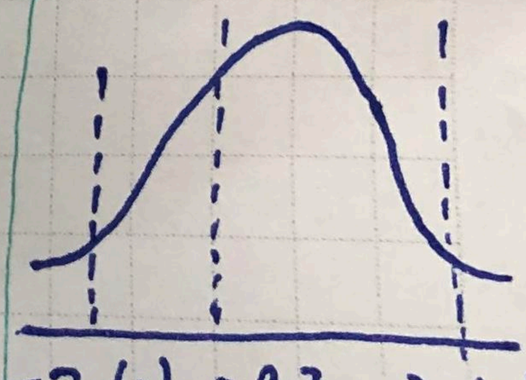


9. $t_{0.025}(18)=2.101$

$H_0:M_1=M_2$ $H_1:M_1\neq M_2$

$$\frac{(\bar{X}-\bar{Y})-0}{S_p\sqrt{\frac{1}{n_1}+\frac{1}{n_2}}}=\frac{82.6-84.9}{5.693\sqrt{\frac{1}{10}+\frac{1}{10}}}=0.903$$

$$S_p=\sqrt{\frac{9\times(4.5265)^2+9\times6.6575^2}{18}}=5.693$$

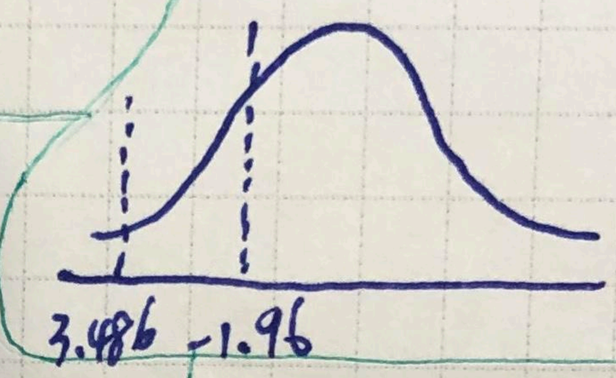


不拒絕H_0

8. $H_0:M_1=M_2$ $H_1:M_1\neq M_2$

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

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



拒絕H_0