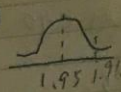
6. $\bar{x}=4.65$ $s=1.26$ (1) $n=40$ $\alpha=0.05$ $H_0:\mu=4.3$ $H_1:\mu\neq4.3$

$z_{0.025}=1.96$, $4.65-4.3 / \frac{1.26}{\sqrt{40}}=1.757$



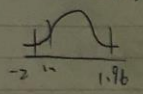
不拒絕

(2) $n=80$ $\alpha=0.05$ $H_0:\mu=4.3$, $H_1:\mu\neq4.3$ $z_{0.025}=1.96$

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

拒絕 H_0

7. $H_0:\mu_1=\mu_2$ $H_1:\mu_1\neq\mu_2$, $z_{0.025}=1.96$ $\frac{(\bar{x}-\bar{y})-0}{\sqrt{\frac{S_1^2}{n_1}+\frac{S_2^2}{n_2}}}=\frac{37.4-41.01}{\sqrt{\frac{40}{100}+\frac{30}{80}}}=-2.045$



拒絕 H_0

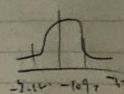
8. $H_0:\mu_1=\mu_2$ $H_1:\mu_1\neq\mu_2$ $\frac{(\bar{x}-\bar{y})-0}{s_p\sqrt{\frac{1}{n_1}+\frac{1}{n_2}}}$ $s_p=\sqrt{\frac{(n_1-1)S_1^2+(n_2-1)S_2^2}{n_1+n_2-2}}$

$\frac{32-34}{3.431\sqrt{\frac{1}{60}+\frac{1}{80}}}=-3.486$ $=\sqrt{\frac{63\times3.2^2+80\times3.6^2}{143}}=3.430$

拒絕 H_0

9. $t_{0.025}(18)=2.101$ $H_0:\mu_1=\mu_2$, $H_1:\mu_1\neq\mu_2$ $s_p=\sqrt{\frac{9(4.5265)^2+9(6.6545)^2}{18}}=5.693$

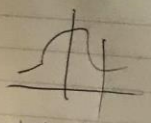
$\frac{(\bar{x}-\bar{y})-0}{s_p\sqrt{\frac{1}{n_1}+\frac{1}{n_2}}}=82.6-84.9 / 5.693\cdot\sqrt{\frac{1}{10}+\frac{1}{10}}=0.903$



不拒絕 H_0

10. $z_{0.05}=1.645$ $z=\frac{\hat{p}-p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}}=\frac{0.45-0.4}{\sqrt{\frac{0.4\times0.6}{100}}}=1.021$

$H_0:p\geq0.04$, $H_1:p<0.04$



拒絕 H_0