6.

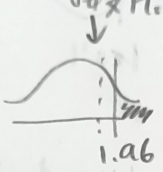
$\bar{x}=4.65$, $s=1.26$

(1) $n=40$, $\alpha=0.5$

$H_0: \mu=4.3$

$H_1: \mu\neq 4.3$

$z_{0.025}=1.96$



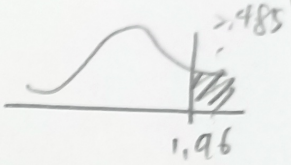
$$\frac{4.65-4.3}{\frac{1.26}{\sqrt{40}}}=1.757$$

(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

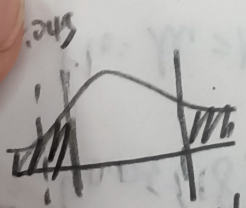
7.

$H_0: \mu_1=\mu_2$ $\alpha=0.05$

$H_1: \mu_1\neq\mu_2$

$z_{0.025}=1.96$

$$\frac{(\bar{x}-\bar{y})-0}{\sqrt{\frac{s_1^2}{n_1}+\frac{s_2^2}{n_2}}}=\frac{38.3-40.1}{\sqrt{\frac{4^2}{100}+\frac{3^2}{100}}}=-2.045$$



拒絕 H_0

8.

$H_0: \mu_1=\mu_2$

$H_1: \mu_1\neq\mu_2$

$\alpha=0.05$

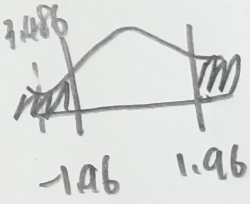
$z_{0.025}=1.96$

$$\frac{(\bar{x}-\bar{y})-0}{s_p\sqrt{\frac{1}{n_1}+\frac{1}{n_2}}}=\frac{32-34}{3.43\sqrt{\frac{1}{64}+\frac{1}{81}}}$$

$$s_p=\sqrt{\frac{(n_1-1)s_1^2+(n_2-1)s_2^2}{n_1+n_2+2}}$$

$$=\sqrt{\frac{63\times 3.2^2+80\times 3.6^2}{143}}=3.430$$

$$=-3.486$$



拒絕 H_0