





6. $\bar{x} = 4.65 = 1.2$ $n = 80$ $\sigma = 1.2$ $\sigma_{\bar{x}} = 1.2/\sqrt{80}$
 $Z_{0.025} = 1.96$, $4.65 = 4.3 / \frac{1.2}{\sqrt{80}} = 1.737$  $\notin E_{\bar{x}}$
 (2) $n = 80$ $\alpha = 0.05$ $H_0: \mu = 4.3$ $H_1: \mu \neq 4.3$ $Z_{0.025} = 1.96$
 $4.65 - 4.3 / \frac{1.2}{\sqrt{80}} = 2.485$  $\notin E_{\bar{x}}$ H_0

(2) $n=80$ $\alpha=0.05$ $H_0: \mu=4.3$ $H_1: \mu \neq 4.3$ $Z_{0.025}=1.96$
 $4.65 - 4.3 / \frac{1.26}{\sqrt{80}} = 2.485$  $\notin \text{RE}$ H_0

$$= -2.045$$


$$\frac{\sqrt{s_1^2 + s_2^2}}{n_1 n_2} \sqrt{\frac{40}{100} + \frac{30}{80}}$$

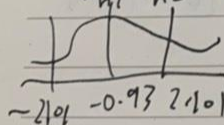
$$p, H_a: \mu_1 \neq \mu_2 \quad H_0: \mu_1 = \mu_2 \quad (\bar{x} - \bar{y}) - 0 \quad S_p = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$$

$$= \sqrt{\frac{32 \cdot 34}{3 \cdot 430}} = \sqrt{\frac{63 \times 3.2^2 + 80 \times 8.6^2}{143}} = 3.486$$

for H_0

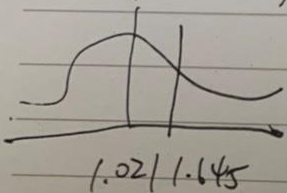
9. $t_{0.025}(18) = 2.101$ $H_0: \mu_1 = \mu_2$ $H_1: \mu_1 \neq \mu_2$ $Sp = \frac{9(452.45)^2 + 9(6.6879)^2}{18}$

$$\frac{(\bar{x} - \bar{y}) - 0}{\sqrt{s_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} = \frac{82.6 - 84.9}{5.693 \times \sqrt{\frac{1}{10} + \frac{1}{10}}} = 0.903 = 5.693$$



$$10. Z_{0.05} = 1.645 \quad Z \frac{\hat{p} - p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}} = \frac{0.45 - 0.4}{\sqrt{\frac{0.4 \times 0.6}{100}}} = 1.021$$

$$H_0: p \geq 0.04, H_1: p < 0.04$$



$$f \in \mathcal{H}_0^p$$