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

$H_0 : \mu_1 = \mu_2$

$H_1 : \mu_1 \neq \mu_2$

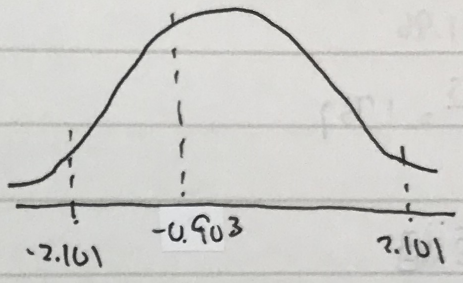
$$\frac{(\bar{x}-\bar{y})-0}{S_p\sqrt{\frac{1}{n_1}+\frac{1}{n_2}}}$$

$$= \frac{82.6-84.9}{5.693\sqrt{\frac{1}{10}+\frac{1}{10}}}$$

$$= -0.903$$

$$S_p = \sqrt{\frac{9\times(4.526)^2+9\times(6.675)^2}{18}}$$

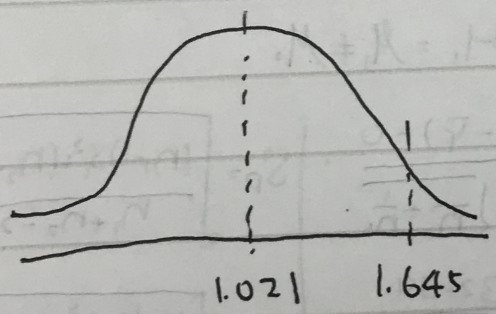
$$= 5.693$$



⇒ 不拒絕 H_0

10 $Z_{0.05} = 1.645$ $H_0 : P \geq 0.4$. $H_1 : P < 0.4$

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



⇒ 拒絕 H_0