

⑧

$$H_0 = \mu_1 = \mu_2$$

$$H_1 = \mu_1 \neq \mu_2$$

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

$$Sp \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}$$

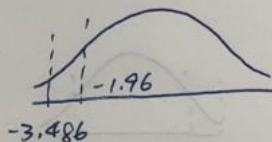
$$= \frac{32 - 34}{3.430 \sqrt{\frac{1}{24} + \frac{1}{31}}}$$

$$= -3.486$$

$$Sp = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}}$$

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

$$= 3.430$$



⑨

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

$$H_0 = \mu_1 = \mu_2$$

$$H_1 = \mu_1 \neq \mu_2$$

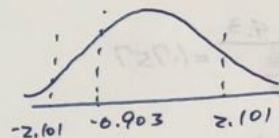
$$\frac{(\bar{x} - \bar{y}) - 0}{Sp \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

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

$$= -0.903$$

$$Sp = \sqrt{\frac{9 \times (4.5265)^2 + 9 \times (6.6575)^2}{18}}$$

$$= 5.693$$



∴ 不拒絕  $H_0$

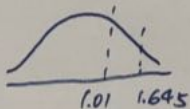
⑩

$$z_{0.05} = 1.645$$

$$H_0 = p \geq 0.4$$

$$H_1 = p < 0.4$$

$$z = \frac{\hat{p} - p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}} = \frac{0.45 - 0.4}{\sqrt{\frac{0.4 \times 0.6}{100}}} = 1.021$$



∴ 拒絕  $H_0$