

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

$$H_0: \mu_1 = \mu_2 \quad H_1: \mu_1 \neq \mu_2$$

$$SP_{\frac{1}{n_1} + \frac{1}{n_2}} = \frac{(8-9) - 0}{5693 \left(\frac{1}{10} + \frac{1}{10} \right)} = 0.903$$

$$SP = \frac{9 \times (4.3263) + 9 \times 6.6595}{18} = 5.49$$

不拒絕 H_0

$$10. Z_{0.05} = 1.645$$

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

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$$\frac{(\bar{X} - \bar{Y}) - 0}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} = \frac{383 - 401}{\sqrt{\frac{40}{100} + \frac{30}{80}}} = 2.045$$

拒绝 H_0

8. $H_0: \mu_1 = \mu_2$ $H_1: \mu_1 \neq \mu_2$

$$\frac{(\bar{x} - \bar{y}) - 0}{\sqrt{\frac{s_p^2}{n_1} + \frac{s_p^2}{n_2}}} = \frac{32 - 34}{\sqrt{\frac{64}{8} + \frac{64}{8}}} = -3.486$$

$$s_p = \sqrt{\frac{(n_1-1)s_1^2 + (n_2-1)s_2^2}{n_1 + n_2 - 2}} = \sqrt{\frac{63 \times 32^2 + 80 \times 26^2}{143}}$$

$= 3.430$  拒絕H₀.