

習題 8.

$$\hat{p}_1 = \frac{55}{100} = 0.55,$$

$$\hat{p}_2 = \frac{60}{100} = 0.60.$$

∴  $p_1 - p_2$  之 95% 信賴區間為.

$$(\hat{p}_1 - \hat{p}_2) \pm Z \frac{\alpha}{2} \sqrt{\frac{\hat{p}_1(1-\hat{p}_1)}{n_1} + \frac{\hat{p}_2(1-\hat{p}_2)}{n_2}}$$

$$= (0.55 - 0.60) \pm Z 0.025 \sqrt{\frac{0.55 \times 0.45}{100} + \frac{0.60 \times 0.40}{100}}$$

$$= (-0.05) \pm 1.96 \times 0.07$$

$$= (-0.05) \pm 0.14.$$

$$\text{即 } (-0.19, 0.09)$$