

# 助教課作業 · 3.24.

張軍力

## 習題 1.

$$(1). G=3, \quad 1-\alpha=0.95, \quad \alpha=0.05, \quad \frac{\alpha}{2}=0.025, \quad Z_{\frac{\alpha}{2}}=Z_{0.025}=1.96$$

$$e=0.05$$

$$\therefore n = \left( \frac{Z_{\frac{\alpha}{2}} G}{e} \right)^2 = \left( \frac{1.96 \times 3}{0.05} \right)^2 = 138.3 \div 139$$

取  $n=139$ .

$$(2). G=0.2, \quad 1-\alpha=0.90, \quad \alpha=0.10, \quad \frac{\alpha}{2}=0.05, \quad Z_{\frac{\alpha}{2}}=Z_{0.05}=1.645$$

$$e=0.03.$$

$$\therefore n = \left( \frac{Z_{\frac{\alpha}{2}} G}{e} \right)^2 = \left( \frac{1.645 \times 0.2}{0.03} \right)^2 = 120.27 \div 121$$

取  $n=121$ .

$$(3) G=0.05, \quad 1-\alpha=0.99, \quad \alpha=0.02, \quad \frac{\alpha}{2}=0.01, \quad Z_{\frac{\alpha}{2}}=Z_{0.01}=2.327, \quad e=0.02$$

$$\therefore n = \left( \frac{Z_{\frac{\alpha}{2}} G}{e} \right)^2 = \left( \frac{2.327 \times 0.05}{0.02} \right)^2 = 33.8 \div 34$$

取  $n=34$ .