

習題 2

$$e = \frac{\sigma}{\sqrt{n}} \times Z_{\frac{\alpha}{2}}$$

1) $\sigma = 3, e = 0.5, 1 - \alpha = 0.95$

$$n = \left(\frac{3}{0.5}\right)^2 \times 1.96^2 = 138.3 \approx 139$$

2) $\sigma = 0.2, e = 0.03, 1 - \alpha = 0.9$

$$n = \left(\frac{0.2}{0.03}\right)^2 \times 1.645^2 = 120.27 \approx 121$$

3) $\sigma = 0.05, e = 0.02, 1 - \alpha = 0.98$

$$n = \left(\frac{0.05}{0.02}\right)^2 \times 2.326^2 = 33.8 \approx 34$$