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習題2、 $e = \frac{\sigma}{\sqrt{n}} \times z_{\frac{\alpha}{2}}$

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

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

≈ 139

(2) $\sigma = 0.2$、$e = 0.03$、$1-\frac{\alpha}{2} = 0.9$

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

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

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

習題6、 $n = 120$、$\bar{x} = 1250$、$\sigma = 140$

$1250 \pm z_{0.025} \frac{\sqrt{140^2}}{\sqrt{120}}$

$= 1250 \pm 25.05$

$\Rightarrow (1224.95, 1275.05)$

習題10、(1) $\mu_1 - \mu_2 = \bar{x} - \bar{y} = 85 - 78 = 7$

(2) $7 \pm 1.645 \cdot \sqrt{\frac{[illegible]}{50} + \frac{[illegible]}{40}}$

$= 7 \pm 1.645 \times 2.59$

$= 7 \pm 4.26$

Double A

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