$= \frac{1}{4.21} = 0.238$

(4) $\chi^2_\alpha(15) = 7.26, \quad \alpha = 0.95$

(8) $F_\alpha(6,6) = 4.28,$

P.228.

ex2.

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

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

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

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

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

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

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

P.229.

ex8.

P.228.

x1.

(1) $t_{0.025}(10) = 2.228$

(2) $t_{0.95}(8) = -1.86$

$\Downarrow$

$1-0.05$

(3) $\chi^2_{0.05}(12) = 21.026$

(4) $\chi^2_{\alpha}(15) = 7.26, \quad \alpha = 0.95$

(5) $\chi^2_{0.95}(10) = 3.940$

(6) $F_{0.05}(5, 8) = 3.69$

(7) $F_{0.95}(6, 7) = \dfrac{1}{F_{0.05}(7, 6)}$

$= \dfrac{1}{4.21} = 0.238$

(8) $F_{\alpha}(6, 6) = 4.28, \quad \alpha = 0.05$

P.228.

ex2.

P.228.

ex6.

1250 $t_{0.025}$

$\alpha = 0.05$

P. 228.

ex6.

$$1250 \pm 0.025\sqrt{\frac{140^2}{120}} = 1250 \pm 25.05$$

$$\Rightarrow (1224.95, 1275.05)$$

P. 228.

ex7.