科別：＿＿＿＿＿＿　A107270050

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1、(1) $t_{0,025}(10) = 2,228$

(2) $t_{0,95}(8) = -1,86$

(3) $\chi^2_{0,05}(12) = 21,026$

(4) $\chi^2_{\alpha}(15) = 7,26$ $\alpha = 7$, $\alpha = 0,95$

(5) $\chi^2_{0,95}(10) = 3,940$

(6) $F_{0,05}(5,8) = 3,69$

(7) $F_{0,95}(6,7) = \frac{1}{F_{0,05}(7,6)} = \frac{1}{4,21} = 0,238$

(8) $F_{\alpha}(6,6) = 4,28$, $\alpha = 0,05$

7、(1) $\hat{p} = \frac{45}{80} = 0,56$

(2) $Z_{\frac{\alpha}{2}}\sqrt{\frac{\hat{p}(1-\hat{p})}{n}} = Z_{0,025}\sqrt{\frac{0,56\times0,44}{80}} = 1,96\times0,06 = 0,12$

(3) $\hat{p} \pm Z_{\frac{\alpha}{2}}\sqrt{\frac{\hat{p}(1-\hat{p})}{n}} = 0,56 \pm Z_{0,05}\sqrt{\frac{0,56\times0,44}{80}}$

$= 0,56 \pm 1,645\times0,06 = 0,56 \pm 0,1$

$= (0,46, 0,66)$

8、$\hat{p}_1 = 0,55$ $\hat{p}_2 = 0,6$

$(\hat{p}_1 - \hat{p}_2) \pm Z_{\frac{\alpha}{2}}\sqrt{\frac{\hat{p}_1(1-\hat{p}_1)}{n} + \frac{\hat{p}_2+(1-\hat{p}_2)}{n}} = (0,55-0,6) \pm Z_{0,025}\sqrt{\frac{0,55\times0,45}{100} + \frac{0,6\times0,4}{100}}$

$= -0,05 \pm 1,96\times0,07$

$= -0,05 \pm 0,14 = (-0,19, 0,09)$

21、

(1) $\hat{p} = \frac{105}{250} = 0,42$

$0,42 \pm Z_{0,05}\sqrt{\frac{0,42\times0,58}{250}}$

$= 0,42 \pm 0,05 = (0,37, 0,47)$

(2)

(a) $\hat{p} = 0,3$ $e = 0,03$ $1-\alpha = 0,95$

$e = \frac{\sigma}{\sqrt{n}} \times Z$

$n = (\frac{Z}{e})^2 \times \hat{p} \times (1-\hat{p})$

$= (\frac{1,96}{0,3})^2 \times 0,3 \times$

(b) $\hat{p} = 0,42$

$$n = \left(\frac{1,96}{0,03}\right)^2 \times 0,42 \times 0,58 = 1039,79 = 1040$$

(c) $\hat{p} = 0,5$

$$n = \left(\frac{1,96}{0,03}\right)^2 \times 0,5 \times 0,5 = 1067,11 \frac{1}{1} 1068$$