Date: / /

A10727006 [illegible]

9. ① $s=\sqrt{\frac{1289-6498^2}{5}}=7.22$ ② $1-\alpha=0.9$, $\frac{\alpha}{2}=0.05$

$\chi^2_{0.05}(5)=11.07$

$\chi^2_{0.95}(5)=1.15$

$\left(\frac{(n-1)s^2}{\chi^2_{\frac{\alpha}{2}}(n)}, \frac{(n-1)s^2}{\chi^2_{1-\frac{\alpha}{2}}(n)}\right)$

$=\left(\sqrt{\frac{5\times7.22^2}{11.07}}, \sqrt{\frac{5\times7.22^2}{1.15}}\right)$

$=(2.17, 6.72)$

20. $\overline{x_1}=7.67$、$\overline{x_2}=6.78$、$n_1=9$、$n_2=9$、

$s_1=8.74$、$s_2=19.94$

$1-\alpha=0.95$、$\alpha=0.05$

① $\left((7.67-6.78)-z_{\frac{0.05}{2}}\sqrt{\frac{76.44}{9}+\frac{397.92}{9}}, (7.67-6.78)-z_{\frac{0.05}{2}}\sqrt{\frac{76.44}{9}+\frac{397.92}{9}}\right)$

$=(0.89-1.96\times7.26, 0.89+1.96\times7.26)$

$=(-13.34, 15.12)$

② $1-\alpha=0.90$, $\alpha=0.1$, $s_1=9.27$, $s_2=21.15$

$\left(\sqrt{\frac{8\times9.27^2}{\chi^2_{0.05}(8)}}, \sqrt{\frac{8\times9.27^2}{\chi^2_{0.95}(8)}}\right)=\left(\sqrt{\frac{687.46}{15.51}}, \sqrt{\frac{687.46}{2.73}}\right)$

$=(6.66, 15.87)$

③ $1-\alpha=0.9$, $F_{\frac{\alpha}{2}}(n_1-1, n_2-1)=F_{0.05}(8,8)=3.44$ $F_{1-\frac{\alpha}{2}}(n_1-1, n_2-1)$

$=F_{0.95}(8,8)=\frac{1}{F_{0.05}(8,8)}=0.29$

$\left(\frac{s_1^2}{s_2^2}\times\frac{1}{F_{\frac{\alpha}{2}}(n_1-1,n_2-1)}, \frac{s_1^2}{s_2^2}\times\frac{1}{(n_1-1)(n_2-1)}\right)=\left(\frac{9.27^2}{21.15^2}\times\frac{1}{3.44}, \frac{9.27^2}{21.15^2}\times\frac{1}{0.29}\right)$

$=(0.06, 0.66)$

Double A