Date / /

Content:

6-7

① $1-\alpha=0.95$ $P(L<\mu<U)=1-\alpha$

$\frac{\alpha}{2}=0.025$

$z_{\frac{\alpha}{2}}=z_{0.025}=1.96$

∴ μ 95% 信賴區間為

$\bar{x}\pm z_{\frac{\alpha}{2}}\frac{s}{\sqrt{n}}=16.33\pm 1.96\frac{4.29}{\sqrt{36}}=16.33\pm 1.4$

∴ (14.93, 17.73)

② $1-\alpha=0.9$

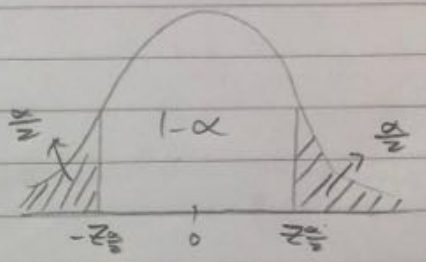
$\frac{\alpha}{2}=0.05$

$z_{\frac{\alpha}{2}}=z_{0.05}=1.645$

μ 90% 信賴區間

$\bar{x}\pm z_{\frac{\alpha}{2}}\frac{s}{\sqrt{n}}=16.33\pm 1.645\frac{4.29}{\sqrt{36}}=16.33\pm 1.18$

∴ (15.15, 17.51)



6-19

$1-\alpha=0.95$

$z_{\frac{\alpha}{2}}=z_{0.025}=1.96$

$e=0.01$

$s=0.05$

由於σ未知

∴ s代入

$n=\left(\frac{z_{\frac{\alpha}{2}}s}{e}\right)^2=\left(\frac{1.96\times 0.05}{0.01}\right)^2=96.04$

$n=97$

樣本 97-35=62筆