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M T W T F S S

6-9

① μ 點估計 $\bar{x} = 15,291.67$

② $1-\alpha = 0.9$

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

自由度為 $n-1 = 12-1 = 11$

$t_{0.05}(11) = 1.796$

∴ μ 之 90% 信賴區為

$\bar{x} \pm t_{\frac{\alpha}{2}}(n-1)\frac{s}{\sqrt{n}} = 15,291.67 \pm 1.796\frac{197.52}{\sqrt{12}}$

$= 15,291.67 \pm 102.41$

∴ 介於 $(15,189.26 \ , \ 15,394.08)$

③ 90% 區間長度

$1,539.08 - 15,189.26 = 204.82$

(or)

$2t_{\frac{\alpha}{2}}(n-1)\frac{s}{\sqrt{n}} = 2 \times t_{0.05}(11)\frac{197.52}{\sqrt{12}}$

$= 2 \times 1.795 \times \frac{197.52}{\sqrt{12}}$

$= 2 \times 102.41$

$= 204.82$