

例 6.9

$$n=12 \quad \bar{x} = 15291.67 \quad \bar{x} \pm t_{\frac{\alpha}{2}} (n-1) \frac{s}{\sqrt{n}}$$

$$s = 199.52$$

(1)

$$\text{点估計} = \bar{x} = 15291.67$$

(2)

$$1-\alpha = 0.9 \quad \frac{\alpha}{2} > 0.05 \quad \text{自由度 } n-1 = 11$$

$$+ (0.05) 11 = 1.796$$

$$15291.67 \pm 1.796 \frac{199.52}{\sqrt{12}}$$

$$= 15291.67 \pm 102.41$$

$$= (15189.26, 15394.08) \quad 90\% \text{ 区間}$$

(3)

$$\text{区間長度} = 15394.08 - 15189.26$$

$$= 204.82$$