

14.

解: $n=15$, $\bar{x}=1.73$, $s=\sqrt{\frac{\sum (x_i - \bar{x})^2}{n-1}} = 0.80$, $1-\alpha=0.95$

$$t_{\frac{\alpha}{2}}(n-1) = t_{0.025}(14) = 2.145.$$

$$1-\alpha=0.80, \quad t_{\frac{\alpha}{2}}(n-1) = t_{0.10}(14) = 1.345.$$

$$\mu \text{ 的 } 95\% \text{ 信赖区间, } \bar{x} \pm t_{\frac{\alpha}{2}}(n-1) \frac{s}{\sqrt{n}} = 1.73 \pm t_{0.025}(14) \frac{0.8}{\sqrt{15}},$$

$$= 1.73 \pm 2.145 \frac{0.8}{\sqrt{15}}$$

$$= 1.73 \pm 0.44$$

$$\text{即 } (1.29, 2.17)$$

$$\mu \text{ 的 } 80\% \text{ 信赖区间为 } \bar{x} \pm t_{\frac{\alpha}{2}}(n-1) \frac{s}{\sqrt{n}} = 1.73 \pm t_{0.10}(14) \frac{0.8}{\sqrt{15}},$$

$$= 1.73 \pm 1.345 \frac{0.8}{\sqrt{15}}$$

$$= 1.73 \pm 0.28.$$

$$\text{即 } (1.45, 2.01)$$