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例 7.1

(1) $H_0: M \geq 350$
 $H_1: M < 350$

(2) $\alpha = 0.05$

(3) $C = z < -z_{0.05} = z < -1.645$

(4) $z = \frac{341.188 - 350}{\frac{6.270}{\sqrt{2}}} = -2.54$

~~接受~~ H_0 *

例 7.2

$p = P(z < -2.54)$
 $= 0.0055 < \alpha$

~~接受~~ H_0 *

1. $H_0: M \geq 198$

(1) $H_1: M < 198$

(2) $\alpha = 0.05$

(3) $t_{0.05}(9) = -1.833, T < -1.833$

(4) $\frac{190 - 198}{\frac{13.16}{\sqrt{10}}} = -1.922$ 拒绝 H_0 *

2. (1) $H_0: M = 420$
 $H_1: M \neq 420$

(2) $\alpha = 0.05$

(3) $z_{0.05} = 1.96, |z| > 1.96$

(4) $\frac{423 - 420}{\frac{12}{\sqrt{100}}} = 2.5$
拒绝 H_0 *

$$\textcircled{3} \begin{cases} H_0: \mu \geq 70 \\ H_1: \mu < 70 \end{cases}$$

$$\textcircled{2} \alpha = 0.03$$

$$\textcircled{3} z_{0.03} = -1.88 \quad z < -1.88$$

$$\textcircled{4} \frac{68.5 - 70}{\frac{6}{\sqrt{36}}} = -1.5 \quad \text{不拒绝 } H_0$$

$$\begin{aligned} 4. \quad & P(z < -1.5) \\ & = 0.0668 > 0.03 \\ & = \text{不拒绝 } H_0 \end{aligned}$$

$$\textcircled{5} \begin{cases} H_0: \mu \leq 1.5 \\ H_1: \mu > 1.5 \end{cases}$$

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

$$\textcircled{3} t_{0.05}(4) = 2.132 \quad T > 2.132$$

$$\textcircled{4} \frac{52 - 1.5}{\frac{0.019}{\sqrt{5}}} = 2.354 \quad \text{拒绝 } H_0$$