

$$1. H_0: \mu \geq 198$$

$$\textcircled{1} H_1: \mu < 198$$

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

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

$$\textcircled{4} \frac{190 - 198}{\frac{13.16}{\sqrt{10}}} = -1.922$$

拒绝 H_0 #

$$2. \textcircled{1} H_0: \mu = 420$$

$$H_1: \mu \neq 420$$

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

$$\textcircled{3} Z_{0.025} = 1.96, |Z| > 1.96$$

$$\textcircled{4} \frac{423 - 420}{\frac{12}{\sqrt{100}}} = 2.5$$

拒绝 H_0 #

3. $H_0: \mu \geq 70$

① $H_1: \mu < 70$

② $\alpha = 0.03$

③ $z_{0.03} = -1.88 \quad z < -1.88$

④ $\frac{68.5 - 70}{\frac{6}{\sqrt{36}}} = -1.5$

不拒绝 H_0

4. $P(z < -1.5)$

$\Rightarrow 0.0668 > 0.03$

\Rightarrow 不拒绝 H_0

5. ① $H_0: \mu \leq 1.5$

$H_1: \mu > 1.5$

② $\alpha = 0.05$

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

④ $\frac{52 - 1.5}{\frac{2.019}{\sqrt{5}}} = 2.354$

拒绝 H_0