

1. $H_0: \mu \geq 198$

① $H_1: \mu < 198$

② $\alpha = 0.05$

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

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

拒絕 H_0 #

2. ① $H_0: \mu = 420$

$H_1: \mu \neq 420$

② $\alpha = 0.05$

③ $z_{0.025} = 1.96$, $|z| > 1.96$

④ $\frac{423-420}{\frac{12}{\sqrt{100}}} = 25$

拒絕 H_0 #

3. ① $H_0: \mu \geq 70$
 $H_1: \mu < 70$

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 $\frac{52 - 1.5}{\frac{0.019}{\sqrt{5}}} = 2.354$

拒绝 H_0 #