

第 7 頁

1.

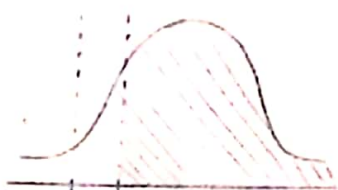
$$H_0: m \geq 198$$

$$H_1: m < 198$$

$$\alpha = 0.05$$

$$t_{0.05}(9) = -1.833$$

$$\frac{190 - 198}{\frac{12.16}{\sqrt{10}}} = -1.923$$



-1.923 < -1.833

拒絕 $H_0 \rightarrow$ 合格

2.

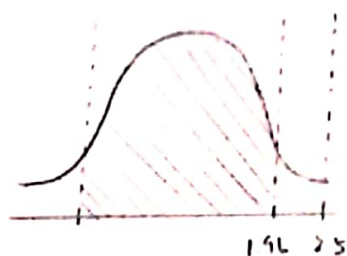
$$H_0: m = 420$$

$$H_1: m \neq 420$$

$$\alpha = 0.05 \quad \frac{\alpha}{2} = 0.025$$

$$Z_{0.025} = 1.96$$

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



1.96 > 2.5

拒絕 $H_0 \rightarrow$ 規格改變

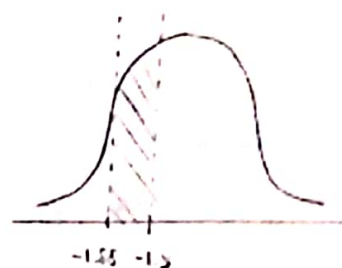
3.

$$H_0: m \geq 70$$

$$H_1: m < 70$$

$$Z_{0.05} = -1.65$$

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



-1.65 < -1.5

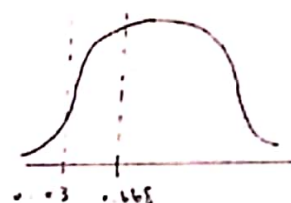
不拒絕 $H_0 \rightarrow$ 吸煙沒有增加

4.

$$P(Z < -1.5)$$

$$= 0.668 > 0.05$$

\Rightarrow 不拒絕 H_0



0.3 0.668

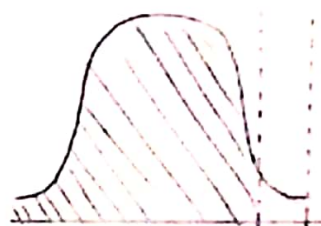
5.

$$H_0: m \leq 1.5$$

$$H_1: m > 1.5$$

$$t_{0.05}(4) = 2.132$$

$$\frac{1.52 - 1.5}{\frac{0.019}{\sqrt{5}}} = 2.354$$



2.132 2.354

拒絕 $H_0 \rightarrow$ 這種不合格