

$$1. H_0 = m \geq 198$$

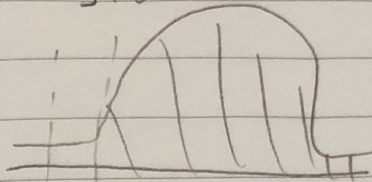
$$H_1 = m < 198$$

$$\alpha = 0.05$$

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

拒絕 $H_0 \Rightarrow$ 合格 #

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



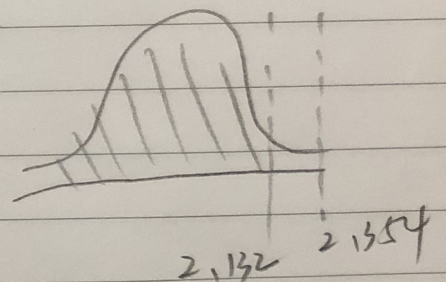
$$-1.922 < -1.833$$

$$5. H_0 = m \leq 1.5$$

$$H_1 = m > 1.5$$

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

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



拒絕 $H_0 \Rightarrow$ 超標不合格

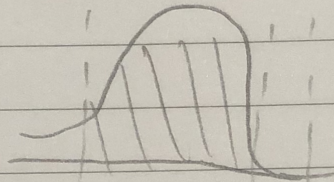
$$2. H_0 = m = 420$$

$$H_1 = m \neq 420$$

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

$$z_{0.025} = 1.96$$

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



$$1.96 (2.5)$$

拒絕 $H_0 \Rightarrow$ 規格改變

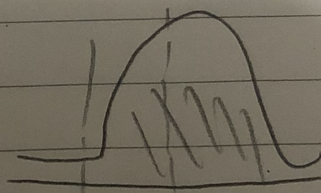
$$3. H_0 = m \geq 70$$

$$H_1 = m < 70$$

$$z_{0.03} = -1.88$$

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

$$-1.5 > -1.88$$



不拒絕 $H_0 \Rightarrow$ 成績沒有不如去年

$$4. p(z < 1.5)$$

$$0.0668 > 0.03$$

\Rightarrow 不拒絕 H_0

