

Ch. 7

習題 1.

$$H_0 = m \geq 198$$

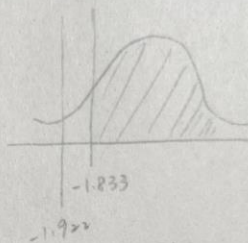
$$H_1 = m < 198$$

$$\alpha = 0.05$$

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

拒絕 $H_0 \Rightarrow$ 合格 ✖

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



習題 2.

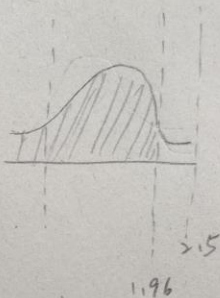
$$H_0 = m = 420$$

$$H_1 = m \neq 420$$

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

$$Z_{0.025} = 1.96$$

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



拒絕 H_0

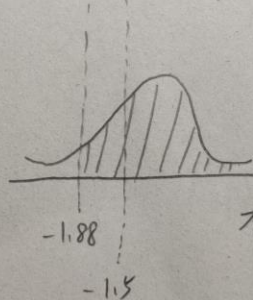
\Rightarrow 規格改變 ✖

習題 3.

$$H_0 = m \geq 70$$

$$H_1 = m < 70$$

$$Z_{0.03} = -1.88$$



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

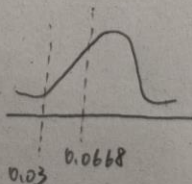
不拒絕 $H_0 \Rightarrow$ 成績沒有不如去年 ✖

習題 4.

$$P(Z < -1.5)$$

$$= 0.0668 > 0.03$$

\Rightarrow 不拒絕 H_0



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ch 7.

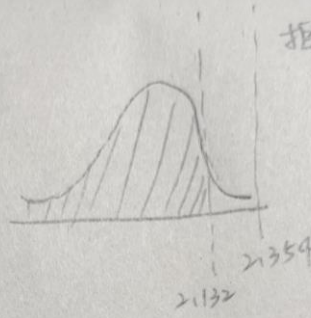
習題 5.

$$H_0 = \mu \leq 1.5$$

$$H_1 = \mu > 1.5$$

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

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



拒絕 $H_0 \Rightarrow$ 超標不合格