

Chapter 7.

P261

習題 1.

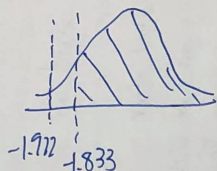
$$H_0: \mu \geq 198$$

$$H_1: \mu < 198$$

$$\alpha = 0.05$$

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

$$\frac{190 - 198}{\frac{13.16}{\sqrt{10}}} = -19.22$$



Reject $H_0 \Rightarrow$ 合格

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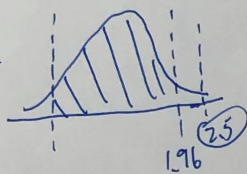
習題 2.

$$H_0: \mu = 420$$

$$H_1: \mu \neq 420$$

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

$$Z_{0.025} = 1.96$$



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

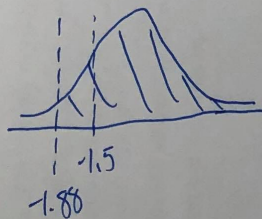
Reject $H_0 \Rightarrow$ 規格改變

習題 3.

$$H_0: \mu \geq 70$$

$$H_1: \mu < 70$$

$$Z_{0.03} = -1.88$$



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

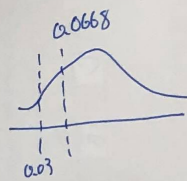
Accept $H_0 \Rightarrow$ 成績沒有不如去年

習題 4.

$$P(Z < 1.5)$$

$$= 0.0668 > 0.03$$

\Rightarrow Accept H_0



習題 5.

$$H_0: \mu \leq 1.5$$

$$H_1: \mu > 1.5$$

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

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

Reject $H_0 \Rightarrow$ 超標, 不合格

