

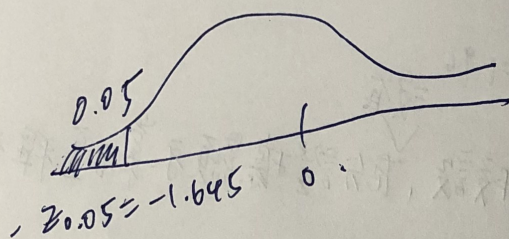
例 17.6.

(1)  $H_0: \mu_1 - \mu_2 \geq 0 \quad H_1: \mu_1 - \mu_2 < 0$ .

(2)  $\alpha = 0.05$ .

(3) 棄卻域  $C = \{z < z_\alpha\} = \{z < -1.645\}$ .

(4)  $z = \frac{\bar{x} - \bar{y}}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} = \frac{6.98 - 7.20}{\sqrt{\frac{0.78^2}{200} + \frac{0.15^2}{180}}} = -2.80$ .



男學生的平均睡眠時間少於女學生

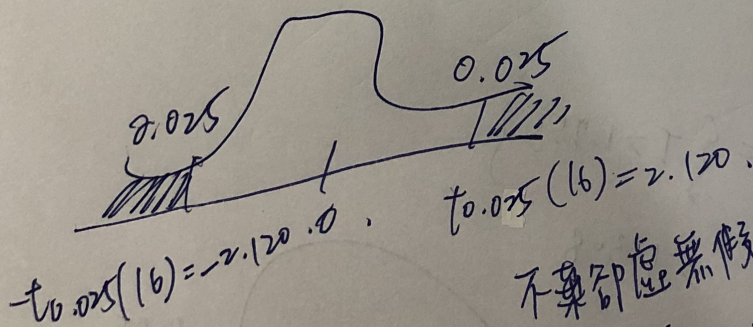
例 17.7

(1)  $H_0: \mu_1 - \mu_2 = 0 \quad H_1: \mu_1 - \mu_2 \neq 0$ .

(2)  $\alpha = 0.05$

(3) 棄卻域  $C = \{|T| > t_{\frac{\alpha}{2}}(n_1 + n_2 - 2)\} = \{|T| > t_{0.025}(16)\} = \{|T| > 2.120\}$ .

(4)  $S_p = \sqrt{\frac{9 \times 0.65^2 + 7 \times 0.7^2}{10 + 8 - 2}} = 0.642 \quad T = \frac{1.128 - 1.546}{0.642 \sqrt{\frac{1}{10} + \frac{1}{8}}} = 0.598$ .



不棄卻虛無假設，即兩種品牌嬰兒奶粉對嬰兒體重的成長並沒有顯著差異