

例 7.11

$$(1) H_0: \frac{\sigma_1^2}{\sigma_2^2} = 1, H_1: \frac{\sigma_1^2}{\sigma_2^2} \neq 1$$

$$(2) \alpha = 0.1$$

(3)

$$\begin{aligned} \text{棄卻域 } C &= \{F < F_{1-\frac{\alpha}{2}}(n_1-1, n_2-1) \text{ 或 } F > F_{\frac{\alpha}{2}}(n_1-1, n_2-1)\} \\ &= \{F < F_{0.95}(9, 7) \text{ 或 } F > F_{0.05}(9, 7)\} \\ &= \{F < 0.304 \text{ 或 } F > 3.68\} \end{aligned}$$

$$(4) F = \frac{S_1^2}{S_2^2} = \frac{0.653^2}{0.627^2} = 1.085$$

根據樣本資料檢定的結果，我們不棄卻虛無假設，即兩種品牌嬰兒奶粉的使用時嬰兒體重成長的變異性並沒有太大差異