

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) 拒绝域 $C = \{F < F_{1-\frac{\alpha}{2}}(n_1-1, n_2-1) \text{ 或 } F > F_{\frac{\alpha}{2}}(n_1-1, n_2-1)\}$
 $= \{F < F_{0.95}(9, 7) \text{ 或 } F > F_{0.05}(9, 7)\}$
 $= \{F < 0.304 \text{ 或 } F > 3.68\}$

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

即两种品牌对婴儿成长并没有太大差异