$H_0: \mu_1 = \mu_2 = \mu_3$ $\alpha = 5\% \quad n_1 = n_2 = n_3 = 15$

9-11

$SST = \sum_{i=1}^{3}\sum_{j=1}^{n_i} y_{ij}^2 - \frac{T^2}{N} = 504$ 自由度 $N-1=44$

$SSTR = \sum_{i=1}^{3}\left(\frac{T_i^2}{n_i}\right) - \frac{T^2}{N} = 410$ 自由度 $t-1=2$

$SSE = SST - SSTR = 94$ 自由度 $44-2=42$

	平方和	自由度	均方	F 檢定
相異	$SSTR=410$	$3-1=2$	$MSTR=\frac{410}{2}=205$	$\frac{MS}{MSE}=91.49$
隨機誤差	$SSE=94$	$44-2=42$	$MSE=\frac{94}{42}=2.24$	
總和	$SST=504$	$45-1=44$		

$F=91.49 > F_{0.05}(2,42) = 3.23$

$\mu_1-\mu_2$ (56-49) $\pm 2.018 \times 2.24 \times \sqrt{\frac{1}{15}+\frac{1}{15}}$
$= (3.974, 11.961)$

$\mu_2-\mu_3$ (51-56) $\pm 2.018 \times 2.24 \times \sqrt{\frac{1}{15}+\frac{1}{15}}$
$= (-9.961, -0.039)$

$\mu_1-\mu_3$ (51-49) $\pm 2.018 \times 2.24 \times \sqrt{\frac{1}{15}+\frac{1}{15}}$
$= (-2.961, 6.961)$

9-13

$\mu_1 = (\frac{1}{3})^3$ $F_{0.05}(3-1, 15-3) = 3.8$

$S = \sqrt{MSE} = \sqrt{0.83} = 2.30$, $\sqrt{(k-1)F} = \sqrt{(3-1)3.89} = 2.79$

$\mu_2-\mu_1$ (56-49) $\pm 2.179 \times 2.30 \times \sqrt{\frac{1}{15}+\frac{1}{15}} = (3.059, 11.941)$

$\mu_3-\mu_2$ (51-56) $\pm 2.179 \times 2.30 \times \sqrt{\frac{1}{15}+\frac{1}{15}} = (-8.941, -1.059)$

$\mu_3-\mu_1$ (51-49) $\pm 2.179 \times 2.30 \times \sqrt{\frac{1}{15}+\frac{1}{15}} = (-2.941, 6.941)$