

IX. Three computer component assembly methods were compared by Insel Corporation. Employee efficiency was based upon production time and product quality.

A. Use ANOVA analysis to test at the .05 level of significance whether mean employee efficiency of these assembly methods are equal.

ANOVA Analysis of Assembly Methods				
Employee Efficiency Ratings for 3 Treatments (T)				Row Totals Required for Calculations
	Method 1	Method 2	Method 3	
	Score	Score	Score	
	4	6	8	
	6	7	8	
	7	4	9	
	7	7	9	
$\sum X_T$				
$(\sum X_T)^2$				
$n$				
$\frac{(\sum X_T)^2}{n}$				
$\sum X_T^2$				

$$SS_T = \sum \left[ \frac{(\sum x_T)^2}{n} \right] - \frac{(\sum x)^2}{N}$$

$$SS_E = \sum x^2 - \sum \left[ \frac{(\sum x_T)^2}{n} \right]$$

$$SS_{TOTAL} = \sum x^2 - \frac{(\sum x)^2}{N}$$

B. Determine at the .01 level of significance whether there is a difference in performance of those who received teaching methods (treatments) 1 and 3.