Practice Set 22 Nonparametric Hypothesis Testing of Ordinal Data Part II

I. Darin conducted a training program for 5 recently-hired employees. This problem first appeared on page 100. At that time it was assumed that the population was approximately normal. If this assumption is not correct or unknown, a .01 level of significance paired difference sign test may be conducted to determine whether training increased worker efficiency.

Employee	Efficiency Rating	
	Before	After
1	8	9
2	6	8
3	7	8
4	7	9
5	8	10

II. Darin wants to reexamine the ANOVA study conducted on page 110. That study assumed populations were normally distributed with equal variances. Those assumptions are not appropriate. Conduct a .01 level of significance Kruskal-Wallis test to determine whether the median weight of parts produced by these 3 departments are equal. Page 110 data has been increased to conform with the $n \geq 5$ test requirement.

Weight Analysis of 9-mg Parts Produced by 3 Departments		
Department 1	Department 2	Department 3
8.95	9.05	9.05
8.90	9.05	9.15
8.90	9.10	9.10
8.92	9.07	9.13
8.88	9.11	9.14