**(4) (10 pts) Do exercises 6.14 and 6.15 (The Wilcoxon Rank Sum Test)**

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1. **H0:  Δ = 0 vs. Ha: Δ ≠ 0**

T.S: T (the sum of rank)

Level of significance is 0.1, from Table 5 above, the reject region is:

T < 51 or T > 93

Thus, if sum of the rank smaller than 51 or larger than 93, H0 will get reject.

1. **H0: Δ = 0 vs. Ha: Δ < 0**

Level of significance is 0.05, the reject region is:

T < 30

Thus, if sum of the rank smaller than 30, H0 will get reject

1. **H0: Δ = 0 vs. Ha: Δ > 0**

Level of significance is 0.025, the reject region is:

T > 53

Thus, if sum of the rank greater than 53, H0 will get reject

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This is median test ☹