1. ) Two gasoline additives will be tested to determine their impact on miles per gallon for passenger cars. In the experiment, each car was tested with both gasoline additives. Use a level of significance α = 0.05 and the rank sum test Wilcoxon test whether any significant difference in the two additives.

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| CAR | ADITIVE A | ADITIVE B |
| 1 | 20.12 | 18.05 |
| 2 | 23.56 | 21.77 |
| 3 | 22.03 | 22.57 |
| 4 | 19.15 | 17.06 |
| 5 | 21.23 | 21.22 |
| 6 | 24.77 | 23.80 |
| 7 | 16.16 | 17.20 |
| 8 | 18.55 | 14.98 |
| 9 | 21.87 | 20.03 |
| 10 | 24.23 | 21.15 |
| 11 | 23.21 | 22.78 |
| 12 | 25.02 | 23.70 |