|  |  |
| --- | --- |
| Weight location | Indication in gram |
|  X1 | 4.449 |
| X2 | 4.451 |
| X3 | 4.451 |
| X4 | 4.452 |
| X5 | 4.451 |
| X6 | 4.453 |
| X7 | 4.452 |
| X8 | 4.452 |
| X9 | 4.456 |
| X10 | 4.453 |
| X11 | 4.453 |
| X12 | 4.453 |
| X13 | 4.449 |
| X1 | 4.448 |
| X2 | 4.449 |
| X3 | 4.45 |
| X4 | 4.449 |
| X5 | 4.451 |
| X6 | 4.452 |
| X7 | 4.453 |
| X8 | 4.452 |
| X9 | 4.456 |
| X10 | 4.453 |
| X11 | 4.455 |
| X12 | 4.451 |
| X13 | 4.452 |
| X1 | 4.449 |
| X2 | 4.451 |
| X3 | 4.451 |
| X4 | 4.452 |
| X5 | 4.451 |
| X6 | 4.453 |
| X7 | 4.452 |
| X8 | 4.452 |
| X9 | 4.456 |
| X10 | 4.453 |
| X11 | 4.453 |
| X12 | 4.453 |
| X13 | 4.449 |
| X1 | 4.448 |
| X2 | 4.449 |
| X3 | 4.45 |
| X4 | 4.449 |
| X5 | 4.451 |
| X6 | 4.452 |
| X7 | 4.453 |
| X8 | 4.452 |
| X9 | 4.456 |
| X10 | 4.453 |
| X11 | 4.455 |
| X12 | 4.451 |
| X13 | 4.452 |
| X1 | 4.449 |
| X2 | 4.451 |
| X3 | 4.451 |
| X4 | 4.452 |
| X5 | 4.451 |
| X6 | 4.453 |
| X7 | 4.452 |
| X8 | 4.452 |
| X9 | 4.456 |
| X10 | 4.453 |
| X11 | 4.453 |
| X12 | 4.453 |
| X13 | 4.449 |
| X1 | 4.448 |
| X2 | 4.449 |
| X3 | 4.45 |
| X4 | 4.449 |
| X5 | 4.451 |
| X6 | 4.452 |
| X7 | 4.453 |
| X8 | 4.452 |
| X9 | 4.456 |
| X10 | 4.453 |
| X11 | 4.455 |
| X12 | 4.451 |
| X13 | 4.452 |
| X1 | 4.449 |
| X2 | 4.451 |
| X3 | 4.451 |
| X4 | 4.452 |
| X5 | 4.451 |
| X6 | 4.453 |
| X7 | 4.452 |
| X8 | 4.452 |
| X9 | 4.456 |
| X10 | 4.453 |
| X11 | 4.453 |
| X12 | 4.453 |
| X13 | 4.449 |
| X1 | 4.448 |
| X2 | 4.449 |
| X3 | 4.45 |
| X4 | 4.449 |
| X5 | 4.451 |
| X6 | 4.452 |
| X7 | 4.453 |
| X8 | 4.452 |
| X9 | 4.456 |
| X10 | 4.453 |
| X11 | 4.455 |
| X12 | 4.451 |
| X13 | 4.452 |

Test conditions:

13 weights were testes with same standard of mass.

4 Operators double test each of weight.

P- Value < 0.005 data is nonparametric.



H0- Weights indicating on each weight have same medians.

Ha- Weights indicating on each weight have different medians.

**Kruskal-Wallis Test: Indication in gram versus Weight location**

Kruskal-Wallis Test on Indication in gram

Weight

location N Median Ave Rank Z

X1 8 4.449 7.5 -4.39

X10 8 4.453 80.5 2.73

X11 8 4.454 87.5 3.42

X12 8 4.452 57.5 0.49

X13 8 4.450 34.5 -1.76

X2 8 4.450 23.5 -2.83

X3 8 4.450 28.5 -2.34

X4 8 4.450 34.5 -1.76

X5 8 4.451 34.5 -1.76

X6 8 4.453 68.5 1.56

X7 8 4.453 68.5 1.56

X8 8 4.452 56.5 0.39

X9 8 4.456 100.5 4.68

Overall 104 52.5

H = 81.58 DF = 12 **P = 0.000**

H = 84.62 DF = 12 **P = 0.000** (adjusted for ties)