**Multiple Comparisons**

Dependent Variable: y

Tamhane

| Group (I) | (Group) (J) | Mean Diff (I-J) | Std. Error | Sig | 95% Confidence Interval Lower | Upper | df |
|---|---|---|---|---|---|---|---|
| 1.00 | 2.00 | -1.00000 | 1.18523 | .974 | -7.6320 | 5.6320 | 3.3259475 |
| | 3.00 | .00000 | 1.23443 | 1.000 | -6.0870 | 6.0870 | 3.8787879 |
| | 4.00 | -4.00000 | 1.46059 | .185 | -9.5967 | 1.5967 | 6.04724409 |
| 2.00 | 1.00 | 1.00000 | 1.18523 | .974 | -5.6320 | 7.6320 | |
| | 3.00 | 1.00000 | 0.51177 | .389 | -0.6658 | 2.6658 | 10.1235060 |
| | 4.00 | -3.00000 | 0.93350 | .144 | -7.0438 | 1.0438 | 4.724650825 |
| 3.00 | 1.00 | .00000 | 1.23443 | 1.000 | -6.0870 | 6.0870 | |
| | 2.00 | -1.00000 | 0.51177 | .389 | -2.6658 | 0.6658 | |
| | 4.00 | -4.00000(*) | 0.99523 | .042 | -7.8520 | -0.1480 | 5.908230153 |
| 4.00 | 1.00 | 4.00000 | 1.46059 | .185 | -1.5967 | 9.5967 | |
| | 2.00 | 3.00000 | 0.93350 | .144 | -1.0438 | 7.0438 | |
| | 3.00 | 4.00000(*) | 0.99523 | .042 | 0.1480 | 7.8520 | |

* The mean difference is significant at the .05 level.

For Comparison of group 1 with group 2 this implies:
Std Err square = 1.18523*1.18523 = 1.4047702

The Interval on this comparison is -1-(-7.6320) = 6.6320
OR 5.6320-(-1) = 6.6320

The interval is equal to SE*tcv, thus
tcv = interval/SE = 6.6320/1.18523 = 5.5955384

Recall there are 6 pairwise comparisons so the adjusted alpha with alpha = .05 is:

Sidak adjusted alpha is = 1 – (1-.05)**(1/6);

q = 1 – (adjusted alpha / 2) = 0.9957438

from Welch Satterhwaite the df for this comparision is **3.3259475**

**tcv = tinv(q, dfe)**
**tcv = tinv(.9957438,3.3259475) = 5.5955384**