

ZADATAK 1

Ho: Medijane nezavisnih promenljivih dve grupe su jednake, tj. prodaja dva ukusu čokolade je jednaka.

Ha: Medijane su različite, tj. prodaja dva ukusa čokolade je različita.

Pošto imamo 4 grupe, prvo ćemo ispisati sve moguće kombinacije poređenja da ne bismo propustili neku.

Lešnik-Jagoda

Lešnik-Jogurt

Lešnik-Kikiriki

Jagoda-Jogurt

Jagoda-Kikiriki

Jogurt Kikiriki

Uradićemo Mann Whitney U test u Minitabu za svaku kombinaciju.

Mann-Whitney Test and CI: Lešnik, Jagoda

	N	Median
Lešnik	7	162.00
Jagoda	7	192.00

Point estimate for $\eta_1 - \eta_2$ is -27.00

95.9 Percent CI for $\eta_1 - \eta_2$ is (-37.00,-11.00)

W = 31.0

Test of $\eta_1 = \eta_2$ vs $\eta_1 \neq \eta_2$ is significant at **0.0073**

The test is significant at 0.0072 (adjusted for ties)

Mann-Whitney Test and CI: Lešnik, Jogurt

	N	Median
Lešnik	7	162.00
Jogurt	7	192.00

Point estimate for $\eta_1 - \eta_2$ is -24.00

95.9 Percent CI for $\eta_1 - \eta_2$ is (-37.00,11.00)

W = 48.5

Test of $\eta_1 = \eta_2$ vs $\eta_1 \neq \eta_2$ is significant at 0.6547

The test is significant at 0.6537 (adjusted for ties)

Mann-Whitney Test and CI: Lešnik, Kikiriki

	N	Median
Lešnik	7	162.00
Kikiriki	7	143.00

Point estimate for $\eta_1 - \eta_2$ is 22.00

95.9 Percent CI for $\eta_1 - \eta_2$ is (-26.99,33.00)

W = 63.0

Test of $\eta_1 = \eta_2$ vs $\eta_1 \neq \eta_2$ is significant at 0.2013

The test is significant at 0.2008 (adjusted for ties)

Mann-Whitney Test and CI: Jagoda, Jogurt

	N	Median
Jagoda	7	192.00
Jogurt	7	192.00

Point estimate for $\eta_1 - \eta_2$ is 6.00

95.9 Percent CI for $\eta_1 - \eta_2$ is (-12.00,39.99)

W = 57.5

Test of $\eta_1 = \eta_2$ vs $\eta_1 \neq \eta_2$ is significant at 0.5653

The test is significant at 0.5605 (adjusted for ties)

Mann-Whitney Test and CI: Jagoda, Kikiriki

	N	Median
Jagoda	7	192.00
Kikiriki	7	143.00

Point estimate for $\eta_1 - \eta_2$ is 48.00
95.9 Percent CI for $\eta_1 - \eta_2$ is (-0.00, 60.99)
W = 69.0
Test of $\eta_1 = \eta_2$ vs $\eta_1 \neq \eta_2$ is significant at **0.0409**
The test is significant at 0.0402 (adjusted for ties)

Mann-Whitney Test and CI: Jogurt, Kikiriki

	N	Median
Jogurt	7	192.00
Kikiriki	7	143.00

Point estimate for $\eta_1 - \eta_2$ is 20.00
95.9 Percent CI for $\eta_1 - \eta_2$ is (-0.00, 60.01)
W = 68.5
Test of $\eta_1 = \eta_2$ vs $\eta_1 \neq \eta_2$ is significant at **0.0476**
The test is significant at 0.0472 (adjusted for ties)

Obeležene su vrednosti manje od praga značajnosti. Postoji značajna razlika između grupa kod kojih je p-vrednost manja od praga značajnosti.

To su:

Lešnik-Jagoda

Jagoda-Kikiriki

Jogurt-Kikiriki

Pošto je poželjno da je prodaja što veća, kod izdvojenih parova je bolja prodaja one čokolade čija je medijana veća (podvučeni ukusi imaju veću medijanu).

Zaključujemo da čokolade sa ukusom jogurta i jagode treba pustiti u masovnu proizvodnju.