Warm-Up: Interaction

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7.19

Comparison, Replication, Crossing and Randomization are all met, but there is not any blocking.

7.21

Here, we observe that there is a pronounced interaction between the fortifications, with a change in means. We also see that there is a possibly smaller standard deviation in cases with ZnLow, suggesting a transformation should be explored.

7.23

Yes the plot shows that there is an interaction.

7.27

a

Firstly, there is no randomization within Male/Female servers, since there is only 1 of each. This is a problem because only the assignment of smiley faces

is randomized; the experiment should be dependent on random assignment of a Male/Female server.

b

One degree of freedom for Male/Female, 0 for the differences between servers, and 0 for the interaction.

c

If we are to do a Two-Way analysis there needs to be multiple Male/Female servers to explain unit to unit block variation. The analysis incorrectly assumes this variation which cannot exist with a single server.

d

For each of the 6 servers, make six groups of tables. For each server, randomly assign smiley faces to half of their tables, and record the resulting tips.