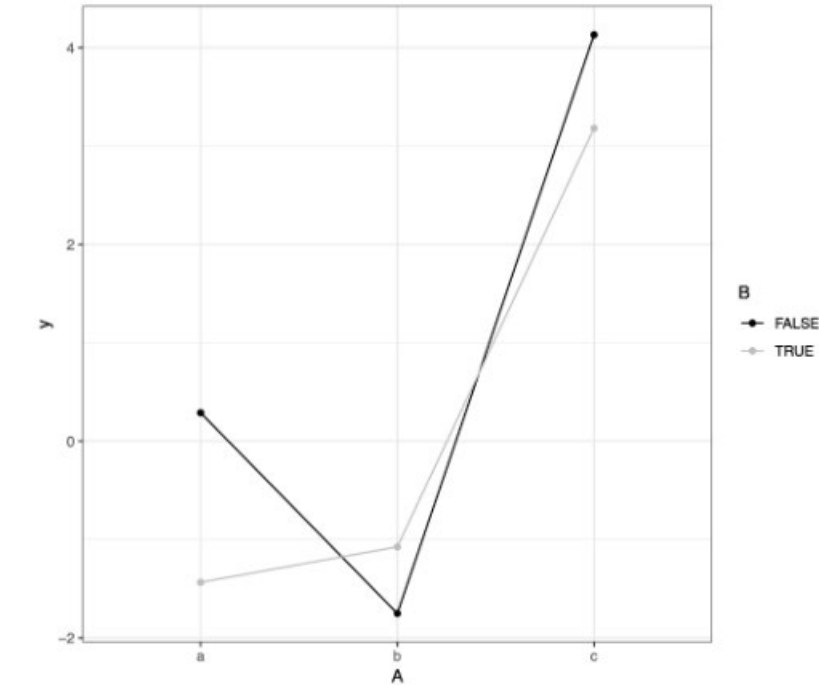


1.

The plot below shows how levels of two factors (A and B) impact the mean of a simulated response, y . The plot shows evidence of an interaction. What modifications could be made to the simulation to provide little to no evidence of an interaction?

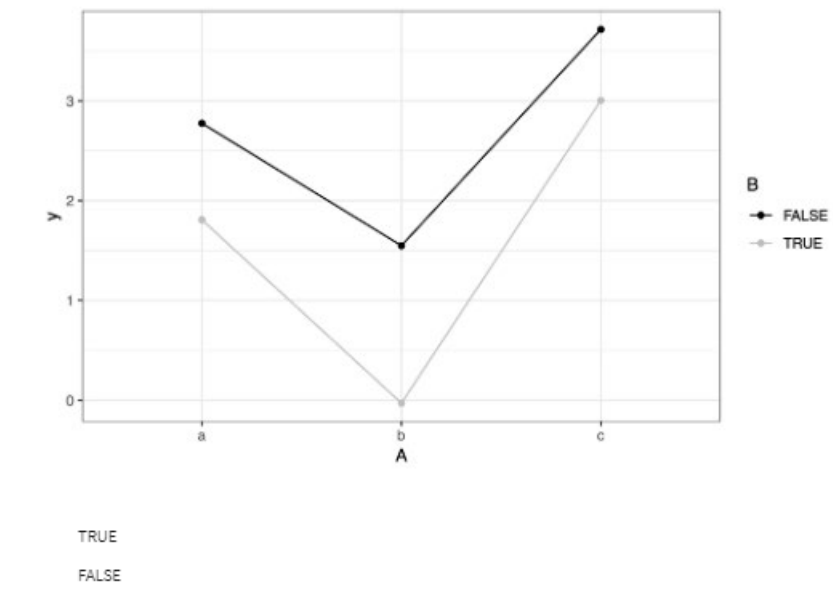


- Reproduce the simulation, except change the sample mean of y for all units in the factor level combination $A = a, B = \text{FALSE}$ to 2.
- Reproduce the simulation, except change the sample mean of y for all units in the factor level combination $A = b, B = \text{FALSE}$ to 0.5.
- Reproduce the simulation, except change the sample mean of y for all units in the factor level combination $A = c, B = \text{FALSE}$ to 2.
- Reproduce the simulation, except change the sample mean of y for all units in the factor level combination $A = b, B = \text{FALSE}$ to -2.

3. The plot below shows how levels of two factors (A and B) impact the mean of a simulated response, y . The plot shows evidence of an interaction. What type of interaction does the plot show evidence of?

- ☐ A reinforcement interaction
- ☐ An interference interaction

2. The following plot provides strong evidence that there is an interaction between factors with respect to a continuous response y .



4. Interaction plots can tell researchers whether there is a statistically significant interaction between factors (with respect to the mean of a continuous response variable).

- ☐ true
- ☐ false

5. Interaction plots...

- ☐ are helpful visualizations for gaining insight into the nature of interactions in a two-way ANOVA.
- ☐ provide a formal statistical analysis of the interactions between factors.
- ☐ show precisely how the sample means of the response change as a function of the factors.
- ☐ Show precisely how the population means of the response change as a function of the factors.