STAT 217 – Quiz 12 (Theory-based inference for 2×2 tables)

Assigned on Thur Feb 5, due on Mon Feb 9. You may work with a group of as many as 4 students, submitting one quiz with all names, provided that you all contribute to the work. You may use your notes.

We have been studying inference techniques for comparing proportions between two groups. Select the best of the options presented for each question.

1. These inference techniques for comparing two proportions apply to studies with what types of variables?
   Two categorical variables Two quantitative variables One of each type

2. These inference techniques for comparing two proportions apply to what kinds of studies?
   Experimental Observational Both Neither

3. A small p-value indicates that the data provide strong evidence of what?
   That the two groups differ That the two groups do not differ

4. A confidence interval for a difference in population proportions that includes the value zero provides evidence of what?
   That the two groups differ That the two groups do not differ

5. In which of the following situations is a cause-and-effect conclusion justified?
   When the p-value is small, and the study was a randomized experiment
   When the p-value is small, for both randomized experiments and observational studies
   When the p-value is not small, and the study was a randomized experiment
   When the p-value is large, for both randomized experiments and observational studies