

Matching (1 pt each)

Directions: Select the single most appropriate test for the situation described

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|-------------------------------------|-----------------------------------|
| A. One Way ANOVA | B. Two Way ANOVA |
| C. Chi-square test of Independence | D. Chi-square test of Homogeneity |
| E. Simple Linear Regression (SLR) | |
| F. Multiple Linear Regression (MLR) | |

1. B Two curriculum ("A" and "B") for the same course are taught, each by three different instructors ("1", "2", "3"). Students' final exam scores are recorded (out of 100%). We would like to compare the effectiveness of the two curriculum as well as the three instructors. *cat*
2. E Researchers in Canada measured the *length of the season* (in days) as well as the *average winter precipitation* (in inches) over the last 50 years for one outdoor hockey rink location. They would like to investigate the relationship between length of season and winter precipitation for this location. *quant*
3. F Every year since 1910, park managers in Yellowstone National Park count the size of the bison herd, number of calves, and number of wolf packs. The researchers would like to predict the size of the bison herd the following year. *quant*
4. D Two random samples of homeowners in Montana were performed (rural and city dwellers). For each sample the homeowners were asked whether the most recent bike they purchased was: bought used, bought new, or whether they had never bought a bike.
5. C or D accepted In a 1988 case, defense attorneys researched the relationship between the race of the murder victim and whether the defendant was sentenced to the death penalty.
6. C Researchers in Canada investigated the relationship between the age class of a child (0-1, 2-5, 6-10, 11-16, >17) and the sex of parent/child in a parent-offspring homicide (Male/Male, Male/Female, Female/Male, Female/Female).
7. F Researchers investigated whether age (in years) and/or education level (HS, HS+Some College, College) was related to level of depression (score 1-10).