Nachmiass RMSS 8e Chapter 16

1. A bivariate table is one in which:

 A) a single variable is broken down into two categories.

 B) a dependent variable is cross-classified by three or more independent variables.

 \*C) a dependent variable is cross-classified by an independent variable.

 D) there is exactly one row and one column.

2. Correlation coefficients can:

 A) prove a causal relationship exists.

 \*B) show the degree to which one variable can be used to predict the values of the other variable.

 C) improve the relationship between variables.

 D) reveal how the data were collected.

3. When two variables are ordinal, \_\_\_\_\_ of the univariate distributions can be used to measure covariation.

 A) modes

 \*B) medians

 C) means

 D) standard deviation

4. The principle upon which measures of association are based, that knowledge of an independent variable will improve our ability to predict the values of a dependent variable, is known as:

 \*A) proportional reduction of error.

 B) sampling validity.

 C) normal distribution.

 D) curvilinearity.

5. A lambda value of -.50 would indicate:

 A) a moderately strong relationship between two variables.

 B) a curvilinear relationship.

 C) that the independent variable improves prediction of the dependent variable by 50 percent.

 \*D) an error in calculation.

6. A study of voting behavior in the 2012 presidential election found that 58% of people voted for Obama and 42% for Romney, and 100% of Obama voters described themselves as liberal while 100% of Romney voters described themselves as conservative. The lambda coefficient for the relationship between the political ideology and vote cast would be:

\* A) 1.0

 B) -1.0

 C) 0

 D) 100

7. The measure of association which determines the degree to which the ranking of a case on one ordinal variable may be predicted if we know its ranking on a second ordinal variable is:

 A) standard deviation.

 B) lambda.

 \*C) gamma.

 D) Pearson's r.

8. If two ordinal variables are compared, and it is found that when one ranks high, the other ranks low, the relationship is:

 A) positive.

\* B) inverse.

 C) curvilinear.

 D) skewed.

9. If we were to encounter a large number of cases that tie on ranks of two ordinal variables, the appropriate measure of association would be:

 A) the mean.

 B) lambda.

 C) Pearson's r.

 \*D) Kendall's tau-b.

10. A perfect linear relationship between two interval variables, X and Y, means that:

 A) X and Y are unrelated

 \*B) pairs of X and Y values can be plotted as a straight line

 C) X and Y are negatively associated

 D) when X increases by one unit Y increases by two units.

11. Y = a + bX is the formula for:

 \*A) linear regression.

 B) Pearson's correlation.

 C) lambda coefficient.

 D) standard deviation.

12. Suppose we have found that the equation Y = 56 + 7.5X represents the relationship between scores of a mathematics exam (Y) and the amount of study time in hours (X). If a student studies for four hours, we would predict that his or her exam score will be:

 A) 60.

 B) 67.5.

\* C) 86.

 D) 90.

13. If one were exploring a relationship between the number of years of schooling and income (in dollars per year), the most appropriate measure of association would be:

 A) standard deviation.

 B) lambda.

 C) Kendall's tau-b.

 \*D) Pearson's r.

14. A Pearson's r of -1.0 would indicate a(n):

 \*A) perfect inverse association.

 B) complete absence of association.

 C) perfect positive association.

 D) error in calculation.

15. Observe the following scatter diagram.

The best way to describe this relationship would be:

 A) strong positive.

 B) weak positive.

 \*C) inverse.

 D) no relationship.

**Note:** Correct options are marked with “\*”.