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MAT 222  
Spring 2019  
Quiz 1

*“It is possible to commit no mistakes  
and still lose. That is not a weakness;  
that is life.”*  
—Jean-Luc Picard, *Star Trek: The Next  
Generation*

Directions: For each of the following, place a mark in the blank to indicate the correct answer.

**Problem 1:** If something is statistically significant, it must have practical significance?

- (a) \_\_\_\_\_ True
- (b)  False

**Problem 2:** Analyzation of data should always begin with. . .

- (a) \_\_\_\_\_ a computation of a confidence interval.
- (b) \_\_\_\_\_ a hypothesis test.
- (c)  graphically representing the data (whenever possible).
- (d) \_\_\_\_\_ comparing all variables to look for correspondences.

**Problem 3:** Which of the following are problems when gathering data?

- (a) \_\_\_\_\_ The difficulty in question design, e.g. loaded/leading questions, double barreled questions, absolutes, background/phrasing issues, etc..
- (b) \_\_\_\_\_ The costs of performing even ‘medium’ sized studies.
- (c) \_\_\_\_\_ The fact that even when there is correlation between variables, there may be confounding variables. Furthermore, there may not be a causation relationship.
- (d)  All of the above.

**Problem 4:** Rejecting the null hypothesis when you should not is called. . .

- (a)  a Type I error.
- (b) \_\_\_\_\_ a Type II error.
- (c) \_\_\_\_\_ the power of the test.
- (d) \_\_\_\_\_ a whoopsie-daisy.

**Problem 5:** Which is generally more serious: a Type I error or a Type II error?

- (a)  Type I
- (b) \_\_\_\_\_ Type II