5. A type I error occurs when the
   a. null hypothesis is accepted when it is false.
   b. null hypothesis is rejected when it is true.
   c. sample size is too small.
   d. effect size (γ) is not defined in advance.

6. A type II error occurs when the
   a. null hypothesis is accepted when it is false.
   b. null hypothesis is rejected when it is true.
   c. sample size is too small.
   d. effect size (γ) is not defined in advance.

8. A researcher conducts a small study and finds that no statistically significant relationship exists between smoking and lung cancer. This is most likely
   a. a type I error.
   b. a type II error.
   c. both a and b.
   d. none of the above.

9. Which of the following is more likely to contain the "true" population value of the mean?
   a. A 90% confidence interval (CI).
   b. A 95% CI.
   c. A 99% CI.
   d. All of the above.

10. If a statistical test is significant, it means that
    a. it has important clinical applications.
    b. the study had acceptable power.
    c. the null hypothesis was rejected.
    d. all of the above are true.

2. The α-level is defined by
   a. the probability of making a type I error.
   b. the probability of making a type II error.
   c. the researcher at the start of a study.
   d. a and c only.

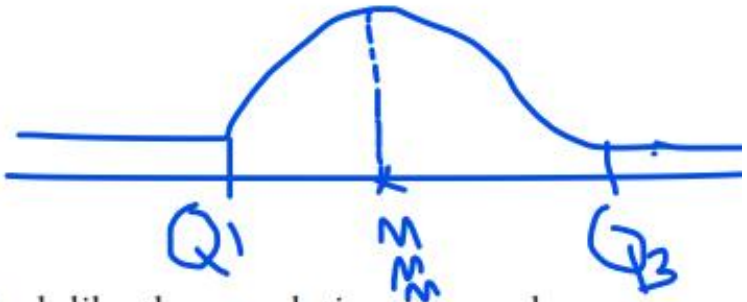
1. The null hypothesis states
   a. the expected direction of the relationship between the variables.
   b. that no relationship will be found.
   c. that a relationship will be found, but it will not state the direction.
   d. none of the above.

6. A normal distribution is characterized by
   a. a bell shape.
   b. a mean, median, and mode that are equal.
   c. a total area under the curve above the x-axis that is 1.
   d. all of the above.

7. A z-score can give information about
   a. the mean of a distribution.
   b. the standard deviation (SD) of a distribution.
   c. the percentile rank of a data point.
   d. none of the above.

8. A z-score of 0 corresponds to the
   a. mean.
   b. SD.
   c. interquartile range.
   d. 75th percentile.

9. The 50th percentile is always the
   a. mean.
   b. median.
   c. SD.
   d. a and b.



10. A sample population curve is more likely to look like the population curve when
    a. the bell shape is wide.
    b. the sample size is small.
    c. the sample size is greater than 30.
    d. none of the above.