Confidence Intervals/Hypothesis Tests Definitions and Concepts

1. When setting up a null hypothesis, which of the following symbols will we never use: $=, <, >, \neq$?

2. In words, what is the difference between a population measurement and a sample measurement?

3. Describe in words what a confidence interval tells us about an unknown population mean.

4. True or False: A wider confidence interval means a larger confidence level. Why?

5. How does increasing the following affect the width of the confidence interval: critical value, sample size, standard deviation?

6. If we don't know the population standard deviation when constructing a confidence interval, will we need to find a z critical value or a t critical value?

7. Describe in words what a P-value represents.

8. Explain the difference between a proportion, p, and a P-value.

9. When we conclude a hypothesis test, we either reject a null hypothesis or fail to reject a null hypothesis. Why do we use the language “fail to reject” instead of “accept”?

10. If a hypothesis test wanted to determine if we found significant evidence that Hunter students’ test scores are greater than 85, write out the alternative hypothesis to our test.