Quiz 14 Review

Name: _____

Hypothesis Testing—pgs. 75-78

Date:_____ Period:_____

Vocabulary

1. _____ _____ is a decision-making process for evaluating claims about a population

2. A _____ _____ is a conjecture about a parameter; conjecture may or may not be true

3. A statement of equality to be tested; denoted: H_o is called a _____ _____.

4. A statement of inequality that is the complement of the null; denoted: H_a is called a _____ _____.

5. A _____ _____ separates the critical region from the non-critical region

6. The _____ _____ is the shaded portion and it indicates a significant difference and that the null should be rejected.

7. The _____ _____ is not shaded and means that the difference is probably due to chance and that the null hypothesis should not be rejected

8. _____- or _____-tailed test indicates that the null should be rejected when the test value is in the critical region

9. A _____ _____ uses the data obtained from a sample to make a decision about whether or not the null hypothesis should be rejected

10. A _____ _____ is a number obtained to decide whether or not to reject the null hypothesis

Work Problems

Pg. 75-76 —Hypothesis Testing for the MEAN when n>30

Answer the following. Complete all four steps.

11. A recent study claimed that the average age of murder victims in a small city was older than 28.6 years. A sample of 15 recent victims had a mean of 29.2 years and a sample standard deviation of 2 years. At α = 0.05, is the claim substantiated?

12. A high school counselor wishes to test the theory that the average age of the dropouts in her school district is 16.3 years. She samples 22 recent dropouts and finds that their mean age is 16.8 years. At α = 0.01, is the theory correct? The sample standard deviation is 0.7 years.

13. Medical Rehabilitation Education Foundation found that the average cost of cardiac rehabilitation is $15,419. An administrator at Pine Valley Rehabilitation Center sampled 14 cardiac patients and found the mean cost was $13,902 and the population standard deviation was $2,616. At $\alpha = 0.05$, can it be concluded that the average cost is different from $15,419?

Pg. 77-78 —Hypothesis Testing for a PROPORTION

Answer the following. Complete all four steps.

14. A radio manufacturer claims that 75% of teenagers 13-16 years old have their own MP3 players. A researcher wishes to test the claim and selects a random sample of 80 teenagers. The researcher finds that 57 have their own MP3 players. At $\alpha = 0.01$, test the claim.

15. A person claims that more than 84% of all dentists advertise. A sample of 120 dentists in a certain city showed that 63 had used some form of advertising. At $\alpha = 0.02$, is there enough evidence to support the person's claim?

16. A manufacturer claims that 13% of households still have VCR players. A researcher wishes to test the claim and selects a random sample of 200 households. The researcher finds that 31 have VCR players. At $\alpha = 0.06$, test the claim.