Module 17

4. What are the appropriate Ho and Ha for each of the following research studies? In addition, note whether the hypothesis test is one-or two-tailed.

 a. A study in which researchers want to test whether there is a difference in spatial

 ability between left- and right-handed people.

b. A study in which researchers want to test whether nurses who work 8-hour shifts deliver higher-equality work than those who work 12-hour shifts.

c. A study in which researchers want to determine whether crate-training puppies is superior to training without a crate.

Module 18

4. A college student is interested in whether there is a difference between male and female students in the amount of time spent studying each week. The student gathers information from a random sample of male and female students on campus. Amount of time spent studying is normally distributed. The data follow.

 Males Females

 27 25

 25 29

19 18

10 23

16 20

22 15

14 19

 a. What statistical test should be used to analyze these data?

 b. Identify Ho and Ha for this study.

 c. Conduct the appropriate analysis.

 d. Should Ho be rejected? What should the researcher conclude?

 e. If significant, compute the effect size and interpret.

 f. If significant, draw a graph representing the data.