**Answers to Even-Numbered Problems**

**Chapter 1**

2. A population is the entire universe of people, places, or objects a researcher wishes to study. Populations are typically too large to study directly; it is too time consuming, too expensive, or simply impossible to collect data on every unit within the population.

4. Replication is important in science because replication validates the original findings and demonstrates that they are not a fluke or limited to a particular set of circumstances. Replication builds confidence in the accuracy and generalizability of the original findings.

6. [Student-generated answers will vary; instructors evaluate case by case]

8. This research would be exploratory, since the researcher is investigating a new area. Her inquiry would be open ended rather than relying on hypotheses.

10. GIGO stands for “garbage in, garbage out.” It relates to statistics in two ways. First, high-quality data can be ruined if the wrong statistical analysis is applied to them. Second, even the most leading-edge statistical technique cannot salvage poor data. Data have to be collected using scientifically sound methods and have to be analyzed using correct statistical procedures.