Section 7.1 Worksheet **Name_____**
Introduction to Statistics

Questions for your consideration concerning the use of samples in statistical studies.

1. Why don't the following procedures give a random sample for the entire population of New York City?

a. Select every third person entering a beauty salon.
b. Select every third man entering a fancy restaurant.
c. Select every third person coming out of a boxing match at Madison Square Garden.

2. Consider the population of all students at Jefferson High School.

a. Explain how you could get a random sample of ten students from this population.
b. List three ways of getting samples from this population that are not random samples. Explain why each of these samples is not a random sample.

3. Marion Community College samples graduating students to determine their satisfaction with their academic programs of study. Several sampling techniques are described below. Categorize each technique as simple random sample, stratified sample, systematic sample, cluster sample, or convenience sample.

a. Obtain a list of graduating students. Divide the students according to areas of study and survey all students in a random selection of programs.
b. Obtain a list of graduating students. Number these students and then use a random number table to obtain the sample.
c. Instruct student services to survey every 50th student in an alphabetical list of graduates.
d. Hand out a survey at graduation practice and ask students to fill it out and place it in the box at the rear of the auditorium after practice is finished.

4. A sample should be representative of the population that is under consideration. Why is this important to the outcome of the survey?

5. Give one example of a survey that you have recently seen or participated in. (There are many online surveys that you can research.) What sampling technique was used? Do you believe the results to be biased? Why or why not?