

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Survey Sampling

Instructions:

Read the survey sampling scenario below. Then, read the questions that follow. Re-read the scenario focused on the questions. Finally, write your response to each question.

### Scenario

A researcher was asked to design an investigation based on the following research question:

**Do American adult males spend more of their prime time hours online or watching regular television?**  
***(Prime time is defined as weekday evenings from 7pm to 9pm)***

The researcher decided to conduct a survey sample. He determined that he would choose 1,000 American males over the age of 18 through a landline telephone survey. The researcher would randomly select the telephone numbers of adult males that live on the east coast of the United States.

Answer the following questions:

1. What is the target population and what is the sample?
  
2. Describe what 'bias' means. If a bias exists in the scenario you just read, explain why the sampling plan might be biased.
  
3. If a sampling plan is biased, what can the researcher do to reduce the bias?
  
4. A study was conducted at a particular high school about whether girls that attend that school prefer Red Vines<sup>®</sup> or Twizzlers<sup>®</sup>. Identify the following as either a parameter or a statistic by circling the correct term:
  - a. A random sample of 100 girls was selected. The results were that 40% preferred Red Vines<sup>®</sup>. The number "40%" is:  

Parameter      or      Statistic
  - b. All of the girls at the high school were asked about their preference. The results were that 45% preferred Red Vines<sup>®</sup>. The number "45%" is:  

Parameter      or      Statistic