

1. Identify whether the following is a **voluntary response** sample or **convenience** sample.
 - a. The BBC in Britain requested viewers to call the network and indicate their favorite poem
 - b. A politician asks his neighbors their opinions about a controversial issue.
 - c. Priceline.com randomly e-mails a Customer Satisfaction Survey for certain transactions done on its site in which customers choose to either respond or not.
 - d. A soap company distributed free samples of a new laundry detergent to all households in several randomly selected neighborhoods. The company requested the recipients to return a postage-paid card indicating whether they thought the sample was better than their usual detergent.
 - e. A professor asks the first 5 students who arrive to class to participate in a research study about young adult sleep patterns.
 - f. Selecting the first 25 people arriving at an 11 a.m. movie on a Tuesday to ask about their favorite movie genre.
 - g. A TV show host asks his viewers to visit his website and respond to an online poll.
 - h. A researcher polls people as they walk by on the street.
 - i. A restaurant leaves comment cards on all of its tables to learn about customer satisfaction. Each comment card is a brief survey that customers can fill out if they choose to.
 - j. A store prints a request on each receipt asking customers to fill out a satisfaction survey online if they are willing.
 - k. A support hotline asks callers to stay on the line after they have completed their call to respond to a short survey.

- l. Student organization looking to get signatures for a petition camp out in front of Town Center Mall
- m. A community college student interviews everyone in their biology class to determine the percentage of students that own a car.
- n. To avoid working late, the quality control manager inspects the last 10 items produced that day.
- o. To get reactions about a particular new car, readers of a car magazine were asked to mail in their answers to a survey
- p. A television reporter interviewed travelers stranded at an airport during a snowstorm about the efficiency of air travel in Canada.
- q. A quality control worker at a factory selects the first 10 items she sees as her sample for the day.

2. Book Exercises on PG 205 #5.1-5.4. Use complete sentences.

5.1) A recent online poll posed the question: "Should female athletes be paid the same as men for the work they do?" In all, 13,147 (44%) said "yes," 15,182 (50%) said "no," and the remaining 1448 said "don't know."

- a. What is the sample size? (How many people responded to this poll?)
- b. Even though we have a large sample size, we cannot trust this poll to give accurate information. What type of sampling method is this? Why does this method not provide accurate information?

5.2) In 2008, *Parade* magazine posed the following question: "Should drivers be banned from using all cell phones?" Readers were encouraged to vote online at their website. The magazine reported the following results: 2407 (85%) said "Yes" and 410 (15%) said "No."

- a. What type of sample survey is this?
- b. Explain why this sampling method is biased.

5.3) How much sleep do high school students get on a typical school night? A student designed a survey to find out. The student surveyed the first 100 students to arrive at school one morning.

a. What type of sample is this?

b. Explain why this sampling method is biased.

c. The results showed that the average student gets 7 hours of sleep every night. Do you think this is higher or lower than the true average? Why?

5.4) Do adults typically wash their hands after using the bathroom? Two studies were performed to answer this question.

Study 1: A telephone survey of 1001 adults had the following results – 92% always wash their hands; 8% refused to answer.

Study 2: An observational study of 6067 adults in a public restroom showed that 77% washed their hands; 23% did not wash their hands.

a. Why do you think the results of these two studies are so different?

b. What type of sample was collected in study 1?