1.3 Data from a poll conducted by Travelocity led to the following estimates: Approximately 40% of travelers check work email while on vacation, about 33% take cell phones on vacation in order to stay connected with work, and about 25% bring a laptop computer on vacation (San Luis Obispo Tribune, December 1, 2005). Are the given percentages population values or were they computed from a sample?

1.4 Based on a study of 2121 children between the ages of one and four, researchers at the Medical College of Wisconsin concluded that there was an association between iron deficiency and the length of time that a child is bottle-fed (Milwaukee Journal Sentinel, November 26, 2005). Describe the sample and the population of interest for this study.

1.5 The student senate at a university with 15,000 students is interested in the proportion of students who favor a change in the grading system to allow for plus and minus grades (e.g., B+, B, B−, rather than just B). Two hundred students are interviewed to determine their attitude toward this proposed change. What is the population of interest? What group of students constitutes the sample in this problem?

1.7 Representatives of the insurance industry wished to investigate the monetary loss resulting from earthquake damage to single-family dwellings in Northridge, California, in January 1994. From the set of all single-family homes in Northridge, 100 homes were selected for inspection. Describe the population and sample for this problem.
1.8 A consumer group conducts crash tests of new model cars. To determine the severity of damage to 2006 Mazda 6s resulting from a 10-mph crash into a concrete wall, the research group tests six cars of this type and assesses the amount of damage. Describe the population and sample for this problem.

1.9 A building contractor has a chance to buy an odd lot of 5000 used bricks at an auction. She is interested in determining the proportion of bricks in the lot that are cracked and therefore unusable for her current project, but she does not have enough time to inspect all 5000 bricks. Instead, she checks 100 bricks to determine whether each is cracked. Describe the population and sample for this problem.

1.10 Classify each of the following attributes as either categorical or numerical. For those that are numerical, determine whether they are discrete or continuous.
   a. Number of students in a class of 35 who turn in a term paper before the due date
   b. Gender of the next baby born at a particular hospital
   c. Amount of fluid (in ounces) dispensed by a machine used to fill bottles with soda pop
   d. Thickness of the gelatin coating of a vitamin E capsule
   e. Birth order classification (only child, firstborn, middle child, lastborn) of a math major

1.11 Classify each of the following attributes as either categorical or numerical. For those that are numerical, determine whether they are discrete or continuous.
   a. Brand of computer purchased by a customer
   b. State of birth for someone born in the United States
   c. Price of a textbook
   d. Concentration of a contaminant (micrograms per cubic centimeter) in a water sample
   e. Zip code (Think carefully about this one.)
   f. Actual weight of coffee in a 1-lb can