

10.3**Practice A**

In Exercises 1 and 2, identify the type of sample described.

1. A bank wants to know whether its drive-thru customers are satisfied with the service. Customers receive a code on their receipt that allows them to go online and fill out a survey.
2. A school wants to know whether high school teachers prefer before-school or after-school faculty meetings. Ten teachers with classrooms near the front office are surveyed.

In Exercises 3 and 4, identify the type of sample and explain why the sample is biased.

3. Every fifth customer who walks into a locally owned hardware store answers a survey that asks for opinions about lowering taxes for locally owned businesses to increase the likelihood that they can stay open for business.
4. A fitness center wants to find out whether its members would sign up for an afternoon yoga class. It surveys the first twenty members on the alphabetized membership list.

In Exercises 5 and 6, determine whether the sample is biased. Explain your reasoning.

5. Every fourth passenger who boards an airplane is asked whether they like the new method of seat assignment.
6. Your teacher is choosing 4 students to participate in a pizza-eating contest. The names of all 30 students are put in a hat and four names are randomly drawn from the hat.

In Exercises 7 and 8, explain why the survey question may be biased or otherwise introduce bias into the survey. Then describe a way to correct the flaw.

7. A guidance counselor asks high school students, "Do you miss school often?"
8. "The fish being caught in our lake are found to have lesions, which could be toxic when eaten. Do you think the city should address this health problem?"