

LESSON
8-5

Practice

Sampling Distributions

Classify each sample as *simple random, systematic, stratified, cluster, convenience, or self-selected*. The first problem has been completed for you.

- 1. The business manager at a gym calls every 20th member on the complete list of members to find out whether they would use a childcare service during their workouts.
- 2. A hair salon surveys every customer on a busy Saturday and on a slow Monday about whether the services took longer than the customer expected.

Solution: systematic

- 3. A college newspaper reporter surveys 50 randomly selected students on campus to see if they are happy with the college.
- 4. A school's counselor asks the first 10 students she meets with on a Monday if they are planning to attend a job fair.

- 5. The junior class president wants to know what theme song her classmates would like at junior prom. She is deciding between three different survey methods:
 - a. Survey all juniors in her math class.
 - b. Survey every 10th junior on the junior class roster.
 - c. Survey 50 randomly selected students at a meeting that every junior is required to attend.

Which method would represent the opinion of the junior class most accurately? Explain.

Does each survey indicate the majority's preference? Explain your response.

- 6. A news group polls citizens about whether they are in favor of a new school. 58% are in favor of the new school and 42% are not. The survey's margin of error is $\pm 3\%$.

- 7. Hilary and Michael are running for class president. A poll taken a week before the election shows that 47% of the students favor Hilary and 53% favor Michael. The survey's margin of error is $\pm 4\%$.