

**SECTION**  
**7B**

**Ready to Go On? Skills Intervention**

**7-7 Selecting Samples**

In a **systematic sample**, a member of the population is selected at random and then others are selected by using a pattern. In a **convenience sample**, the most-available members of the population are chosen. In a **self-selected sample**, members of the population volunteer to respond to a survey.

**Vocabulary**

- systematic sample
- convenience sample
- self-selected sample

**Identifying Sampling Methods**

Organizers of a festival want to know whether people in the community are interested in seeing live bands.

- A.** The organizers randomly choose one of the first twenty names listed alphabetically in the county office. Then they select every twentieth name after that. The first name is chosen at random, and then the other names are chosen by using a pattern. What type of sampling method is this an example of?  
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- B.** The organizers mail surveys to households within 2 miles of the festival site. In this case, people can choose to respond to the survey. What type of sampling method is this an example of?  
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- C.** The organizers survey everyone whose yard borders the festival site. This group of people is easy for the organizers to reach. What type of sampling method is this an example of?  
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**Analyzing Sampling Methods**

Determine which sampling method will better represent the entire population. Justify your answer.

<b>Using Cell Phones to Take Pictures</b>	
<b>Sampling Method</b>	<b>Results of Survey</b>
Matthew surveys 120 people randomly selected from a phone book.	22% use their cell phones regularly to take pictures
Desmond surveys 12 teenagers in line with him at a movie theater	87% use their cell phones regularly to take pictures

Does Matthew use a random sample or a convenience sample?  
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Does Desmond use a random sample or a convenience sample?  
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Whose method produces results that better represent the entire cell phone user population?  
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**SECTION**

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**Ready to Go On? Problem Solving Intervention**

**7-7 Selecting Samples**

Al is opening a sandwich shop downtown. He wants to determine which kinds of sandwiches he should offer. He stands outside a downtown restaurant and surveys all the customers who have just eaten lunch there. How could Al choose a sampling method that better represents his future customers?

**Understand the Problem**

1. Describe the population that Al is interested in.

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2. What type of sampling method did Al use?

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**Make a Plan**

3. Did Al's sampling method produce results that represent all the people who eat downtown? Explain.

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4. Describe a sample that would be more representative of the population in which Al is interested.

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**Solve**

5. Describe how Al could use a sampling method that will better represent all the people who eat downtown.

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6. Identify the sampling method you described in problem 5.

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**Check**

7. Does Al's new sampling method better represent the people who will be eating at his sandwich shop?

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