11-1 Additional Practice
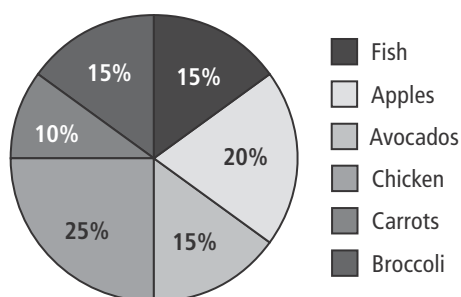
Statistical Questions and Variables

1. Are the questions below statistical questions? Explain.

   a. What is the tallest mountain in the world?

   b. What is the most popular television program among teenagers?

   c. What is the most popular men's sport: football, basketball, tennis, golf, hockey, or lacrosse?

2. What type of statistical variable is represented by the graph shown? Explain.

■	Fish
□	Apples
▨	Avocados
▨	Chicken
▨	Carrots
▦	Broccoli

3. A professor teaches four different science classes. He wants to try out a new style of exam, so during finals, he gives the new exam to 15 randomly selected students in each class. The other students take the regular exam.

   a. What is the sample in this situation?

   b. What is the population?

4. Is the given data summary a parameter or a statistic?

   a. At a local company, management surveys every tenth employee and finds that 24% of the surveyed employees buy their lunch in the cafeteria.

   b. Of the 1,500 people on a cruise ship, 25% are under 18.

11-1 Additional Practice

Statistical Questions and Variables

1. Are the questions below statistical questions? Explain.

a. What is the tallest mountain in the world?
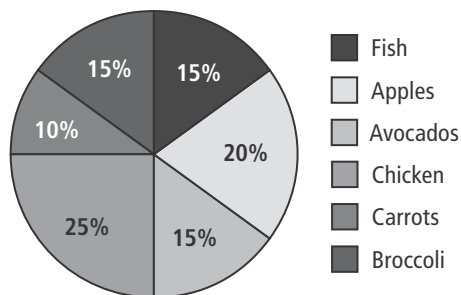**No; it can be answered using one piece of information.**

b. What is the most popular television program among teenagers?
Yes; multiple responses are anticipated.

c. What is the most popular men's sport: football, basketball, tennis, golf, hockey, or lacrosse?
Yes; it is a categorical statistical question with a variety of choices for the response.

2. What type of statistical variable is represented by the graph shown? Explain.

■ Fish
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15% 15% 20% 15% 25% 10%

Categorical; the data indicate qualitative attributes.

3. A professor teaches four different science classes. He wants to try out a new style of exam, so during finals, he gives the new exam to 15 randomly selected students in each class. The other students take the regular exam.

a. What is the sample in this situation?
the 15 students who received the new exam

b. What is the population?
all the students in the professor's classes

4. Is the given data summary a parameter or a statistic?

a. At a local company, management surveys every tenth employee and finds that 24% of the surveyed employees buy their lunch in the cafeteria.
statistic

b. Of the 1,500 people on a cruise ship, 25% are under 18.
parameter