LESSON MAKER PRO

Data Detectives

Spot questions that need data from a group.

GRADE 6 · 6.SP.A.1

CCSS.Math.Content.6.SP.A.1 "Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, "How old am I?" is not a statistical question..."

NAME _____ DATE _____

THE BIG IDEA

A statistical question expects different answers from a group or set of observations. It asks about data that can vary, not one fixed fact about one person or object.

WORKED EXAMPLE

Is this a statistical question? "How many minutes do students in one class spend reading each night?"

1. Look at who is being asked: students in one class.
2. Different students may read for different numbers of minutes.
3. The answers will be a set of data values, not one fixed value.

Answer: Yes, it is a statistical question.

PRACTICE 6 problems

1 Is this a statistical question? "What is the temperature outside at noon today?"

ANSWER _____

2 Is this a statistical question? "What are the shoe sizes of players on the school soccer teams?"

ANSWER _____

3 Is this a statistical question? "How many letters are in Maya's first name?"

ANSWER _____

4 Is this a statistical question? "How many pets do sixth-grade students own?"

ANSWER _____

5 Is this a statistical question? "Which bus route does Jordan take to school?"

ANSWER _____

6 Is this a statistical question? "What is the distance from each student's home to the library?"

ANSWER _____

APPLY IT Show your work

1 The gaming club wants to learn about its members. Choose the statistical question, then tell what could vary. A. How many game levels has Kai completed? B. How many game levels have the gaming club members completed?

WORK SPACE

ANSWER _____

2 A student council member wants to plan music for a lunch event. Rewrite this non-statistical question as a statistical question: "What is Priya's favorite music genre?"

WORK SPACE

ANSWER _____

CHALLENGE One step up

For each question, write statistical or not statistical. Then explain why Question 2 is statistical even though its answers may be words instead of numbers. 1. What is the school mascot? 2. What colors are students' backpacks? 3. How many keys are on this computer keyboard? 4. What is the height of each plant in the science classroom?

WORK SPACE AND ANSWER

ANSWER KEY

Data Detectives

GRADE 6 · 6.SP.A.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Is this a statistical question? "What is the temperature outside at noon today?"	**No, it is not a statistical question. It asks for one temperature at one time.**
2	Is this a statistical question? "What are the shoe sizes of players on the school soccer teams?"	**Yes, it is a statistical question. Players can have different shoe sizes.**
3	Is this a statistical question? "How many letters are in Maya's first name?"	**No, it is not a statistical question. Maya's name has one fixed number of letters.**
4	Is this a statistical question? "How many pets do sixth-grade students own?"	**Yes, it is a statistical question. Students can own different numbers of pets.**
5	Is this a statistical question? "Which bus route does Jordan take to school?"	**No, it is not a statistical question. It asks for one route used by one student.**
6	Is this a statistical question? "What is the distance from each student's home to the library?"	**Yes, it is a statistical question. Students can live different distances from the library.**

PART 2 · APPLY IT

1. **B is the statistical question.** The number of game levels completed can vary from member to member. Question B asks for data from many club members and expects different numbers of completed levels. Question A asks about one person.
2. **Sample answer: What are the favorite music genres of students at our school?** Accept any rewrite that asks about a group and expects varied responses, such as students in the school, grade, or lunch group.

CHALLENGE

1. Not statistical. 2. Statistical. 3. Not statistical. 4. Statistical. Question 2 expects different backpack colors from different students, so the data can vary.

Accept "statistical question" or "statistical" and equivalent explanations that identify a group and possible variation. For the rewrite item, accept any question about a group that can have different answers.