LESSON MAKER PRO

Number Question Detectives

Spot and write questions that collect number data.

GRADE 6 · MA.6.DP.1.1

MA.6.DP.1.1 "Recognize and formulate a statistical question that would generate numerical data."

NAME _____ DATE _____

ASK FOR NUMBERS THAT VARY

A statistical question collects data from a group or changing situation, so the answers are likely to vary. To generate numerical data, ask for a number, such as a count, measurement, or amount of time. Name the group or situation clearly.

WORKED EXAMPLE

A community center wants numerical data about books borrowed by teen visitors in a month. Write a statistical question.

1. Use a group, teen visitors.
2. Ask for a number that can vary.
3. Write: How many books does each teen visitor borrow in a month?

Answer: How many books does each teen visitor borrow in a month?

PRACTICE 6 problems

1 Is this a statistical question that would generate numerical data? How many minutes do students in the school spend reading on a typical day?

ANSWER _____

2 Is this a statistical question that would generate numerical data? What shoe size does Elena wear?

ANSWER _____

3 Change this question into a statistical question that would generate numerical data: How many inches tall is Omar?

ANSWER _____

4 Which question would generate numerical data from a group? A. What is each student's favorite snack? B. How many snacks does each student bring for lunch?

ANSWER _____

5 A student asks, "What is the most popular video game among sixth graders?" Would this question generate numerical data? Explain.

ANSWER _____

6 The robotics team wants to learn about members' trips to school. Write a statistical question that would generate numerical data.

ANSWER _____

APPLY IT Show your work

1 A gaming club wants to plan a tournament. It needs to know how long members usually play games on a school night. Write a statistical question that would generate numerical data.

WORK SPACE

ANSWER _____

2 The student council is deciding whether to add bike racks. It wants numerical data about students who ride bikes to school. Write a statistical question that would help.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Choose every question that is a statistical question that would generate numerical data. Then rewrite one question that does not qualify so it does. A. How many text messages do students in the class send after school on a typical day? B. What is Malik's favorite sport? C. How many laps do members of the track club run during practice? D. Which lunch is each student choosing today?

WORK SPACE AND ANSWER

ANSWER KEY

Number Question Detectives

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Is this a statistical question that would generate numerical data? How many minutes do students in the school spend reading on a typical day?	**Yes.**
2	Is this a statistical question that would generate numerical data? What shoe size does Elena wear?	**No. It asks about one person, not a group with varying answers.**
3	Change this question into a statistical question that would generate numerical data: How many inches tall is Omar?	**How many inches tall are students in Omar's class?**
4	Which question would generate numerical data from a group? A. What is each student's favorite snack? B. How many snacks does each student bring for lunch?	**B. How many snacks does each student bring for lunch?**
5	A student asks, "What is the most popular video game among sixth graders?" Would this question generate numerical data? Explain.	**No. It generates video game names, which are categories, not numerical data.**
6	The robotics team wants to learn about members' trips to school. Write a statistical question that would generate numerical data.	**How many minutes does each robotics team member take to travel to school?**

PART 2 · APPLY IT

1. **How many minutes does each gaming club member play games on a school night?** This question asks each club member for a number of minutes. The answers can vary from member to member.
2. **How many days each week does each student ride a bike to school?** This question collects a number from each student. The number of days can vary among students.

CHALLENGE

A and C. Sample revision for B: How many pets do students in Malik's class have? A and C ask groups for numbers that can vary. B and D do not generate numerical data.

Accept equivalent statistical questions that clearly name a group or changing situation and ask for numerical answers that can vary. For rewritten questions, accept different contexts if the question would collect varying numerical data.