Answers and talk notes

Understand Statistical Questions

What your student is learning

Tonight we learn to tell the difference between a statistical question and a question with just one fixed answer.

Answers

Ask your student to explain before you look.

1. **A.** How many pets does each student in our class have?. How many pets does each student in our class have? asks about every student, so the answers will vary. It is the choice that expects different answers.
2. **B.** You collect data, and the answers are expected to vary. A statistical question is answered by collecting data, and the answers are expected to vary. So the answer is: You collect data, and the answers are expected to vary.
3. **C.** How tall is the door of our classroom?. The door is one object with one height, so one fixed answer settles it. How tall is the door of our classroom? is not statistical.
4. **A.** The data values are different from one another. Variability means the data values are different from one another. So the answer is: The data values are different from one another.

Talk about it

How many different answers do you expect for that question?

Home mission

Think of a game you both know. Ask your student: How many points did the winning team score last night? Then ask: How many points did each player score? Which question has answers that vary? Take turns making up one more pair.

When they are stuck, ask

- What would you collect, and from whom or across which observations?
- Does the question anticipate answers that could vary? Why?
- Does it ask for one fixed fact, or a set of data?

Try not to say

- If the answer is a number, the question is statistical.
- A question about one person can never be statistical.
- Any question about sports or school counts as statistical.