



Sampling and representative samples

GRADE 7 MATH

Name _____

Date _____

Work in order. For each method, say representative or biased, and name the reason. One skill: **sampling**.

WORKED EXAMPLE

A sample is **representative** when every member of the population had a fair chance of being selected. **Random** selection produces that. **Bias** means some group is systematically over- or under-represented — and a bigger sample does not remove it.

1. A school has 600 students and 30 are surveyed. What percentage of the school is that?

FLUENCY

Show your thinking

Answer

2. If 60 are surveyed instead, what percentage is that?

FLUENCY

Show your thinking

Answer

3. A survey about sport is given only to members of the football team. Is it representative? Why?

APPLICATION

Show your thinking

Answer

4. A survey is given to the teacher's own class. Is it representative of the school? Why?

APPLICATION

Show your thinking

Answer

5. A poster invites students to complete an online poll. Is it representative? Why?

REASONING

Show your thinking

Answer

6. Names are drawn from a hat containing every student. Is it representative? Why?

APPLICATION

Show your thinking

Answer

7. Which is better: 200 responses from the poster, or 20 names from the hat? Explain.

REASONING

Show your thinking

Answer

8. Explain what a larger sample DOES improve, given that it does not fix bias.

REASONING

Show your thinking

Answer

9. Write one sound sampling method for finding the average time students spend on homework, and say why it is sound.

REASONING

Show your thinking

Answer