



Sampling and representative samples

GRADE 7 MATH

Name _____

Date _____

Do this on your own — the worked example shows what to do. Say representative or biased, and give the reason. One skill: **sampling**.

WORKED EXAMPLE

Representative means every member of the population had a fair chance of being picked. Random selection produces it. Bias means a group is systematically over- or under-represented, and a bigger sample does not remove it.

1. A school has 500 students and 25 are surveyed. What percentage is that?

FLUENCY

Show your thinking

Answer

2. If 50 are surveyed, what percentage is that?

FLUENCY

Show your thinking

Answer

3. A survey about exercise is given only to the school sports teams. Representative? Why?

APPLICATION

Show your thinking

Answer

4. Names are drawn from a hat containing all 500 students. Representative? Why?

APPLICATION

Show your thinking

Answer

5. An online poll is linked from the school website. Representative? Why?

REASONING

Show your thinking

Answer

6. Every 5th name is taken from the full roster of 500. How many students is that, and what percentage?

APPLICATION

Show your thinking

Answer

7. Is that method sound? Explain what could make it unsound.

REASONING

Show your thinking

Answer

8. A student argues: "My sample had 300 people, so it must be accurate." Explain what is wrong with this reasoning, and what you would need to know instead.

REASONING

Show your thinking

Answer