LESSON MAKER PRO

Who Got Asked?

Compare a sample with the whole population.

GRADE 7 · 7.SP.1a

7.SP.1a "Solve real-world and mathematical problems involving: Understand that a sample is a subset of a population."

NAME _____ DATE _____

THE BIG IDEA

A population is the whole group you want to learn about. A sample is the part of that group you collect information from. To find the fraction sampled, divide the number in the sample by the number in the population.

WORKED EXAMPLE

What fraction of the garden club was surveyed?

GARDEN CLUB SURVEY

Group	Students
All club members	42
Members surveyed	7

1. The population has 42 members.
2. The sample has 7 members.
3. Divide: 7/42 = 1/6.

Answer: 1/6 of the club was surveyed.

PRACTICE 4 problems

1 A club has 30 members. Six are surveyed. What fraction is sampled?

ANSWER _____

2 A school has 80 seventh graders. A sample includes 20. How many are not sampled?

ANSWER _____

3 A sample is 1/4 of a group of 36 players. How many players are sampled?

ANSWER _____

4 A sample of 12 runners is 1/3 of all the runners. How many runners are there?

ANSWER _____

APPLY IT Show your work

1 At a school, 120 students can vote on a game-night theme. Organizers ask 30 of them. What fraction is sampled, and how many are not sampled?

WORK SPACE

ANSWER _____

2 Two esports teams poll fans about new logos. Which team polls a larger fraction of its fans?

LOGO POLLS

Team	Fans	Fans polled
A	90	18
B	96	24

ANSWER _____

CHALLENGE One step up

A school has 150 students, including 75 band members. A sample has 45 band members and 15 other students. What fraction of the school is sampled? Explain why 45/75 is not the answer.

WORK SPACE AND ANSWER

ANSWER KEY

Who Got Asked?

GRADE 7 · 7.SP.1a

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A club has 30 members. Six are surveyed. What fraction is sampled?	**1/5**
2	A school has 80 seventh graders. A sample includes 20. How many are not sampled?	**60 students**
3	A sample is 1/4 of a group of 36 players. How many players are sampled?	**9 players**
4	A sample of 12 runners is 1/3 of all the runners. How many runners are there?	**36 runners**

PART 2 · APPLY IT

1. **1/4 is sampled; 90 students are not sampled.** 30/120 = 1/4. Subtract 30 from 120 to get 90.
2. **Team B, because 1/4 is greater than 1/5.** Team A polls 18/90 = 1/5 of its fans. Team B polls 24/96 = 1/4, which is larger.

CHALLENGE

The sample has 45 + 15 = 60 students, so 60/150 = 2/5 of the school is sampled. The fraction 45/75 describes the band members sampled, not the whole school.

Accept equivalent fractions. In the challenge, students must count both groups in the sample and use all 150 students as the population.