

Circle Graph Detectives

Read parts of a whole and make data-based conclusions.

GRADE 6 • 6.PS.1.e

6.PS.1.e "Analyze data represented in a circle graph by making observations and drawing conclusions."

NAME _____

DATE _____

READ THE WHOLE

A circle graph shows how one whole is split into parts. Use a percent to find a number of items, then compare percents or angles to make conclusions.

WORKED EXAMPLE

A circle graph for 48 votes shows 25% chose smoothies. How many votes chose smoothies?

1. Change 25% to 0.25.
2. Multiply: $0.25 \times 48 = 12$.
3. So, 12 votes chose smoothies.

Answer: 12 votes

PRACTICE 5 problems

- 1** A circle graph shows that 20% of 90 students walk to school. How many students walk?

ANSWER _____

- 2** A circle graph has a 108-degree section for comics. What percent of the circle is this?

ANSWER _____

- 3** A circle graph shows Gaming 33%, Reading 41%, and Sports 26%. Which activity has the largest section?

ANSWER _____

- 4** A circle graph shows Reuse 55%, Recycle 15%, and Throw Away 30%. How much greater is Reuse than Recycle?

ANSWER _____

- 5** A circle graph labels Art 28%, Music 32%, Drama ?, and Other 18%. What percent is Drama?

ANSWER _____

APPLY IT Show your work

- 1** At a club fair, a circle graph of 140 sign-ups shows Game Design 30%, Art 20%, and Other Clubs 50%. How many signed up for Game Design? How many more chose Game Design than Art?

WORK SPACE

ANSWER _____

- 2** A reading challenge circle graph represents 200 books. Fantasy is 45%, Graphic Novels are 35%, and Realistic Fiction is 20%. How many more Fantasy books were read than Realistic Fiction books?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Circle graph A represents 70 students, and 50% choose pizza. Circle graph B represents 90 students, and 40% choose pizza. Which group has more pizza choices? Explain your reasoning.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A circle graph shows that 20% of 90 students walk to school. How many students walk?	18 students
2	A circle graph has a 108-degree section for comics. What percent of the circle is this?	30%
3	A circle graph shows Gaming 33%, Reading 41%, and Sports 26%. Which activity has the largest section?	Reading
4	A circle graph shows Reuse 55%, Recycle 15%, and Throw Away 30%. How much greater is Reuse than Recycle?	40 percentage points
5	A circle graph labels Art 28%, Music 32%, Drama ?, and Other 18%. What percent is Drama?	22%

PART 2 • APPLY IT

- 42 signed up for Game Design, which is 14 more than Art.** Find 30% of 140 to get 42. Find 20% of 140 to get 28, then subtract $42 - 28$.
- 50 more Fantasy books** Find 45% of 200 to get 90 and 20% of 200 to get 40. Subtract $90 - 40$.

CHALLENGE

Circle graph B has more pizza choices, by 1 student. Graph A has 35 pizza choices, and Graph B has 36.

Accept equivalent wording for observations when the comparison is accurate. For the challenge, students should compare the numbers of students, not only the percentages.