

Percent Power Plans

Use parts, wholes, and percents in real situations.

GRADE 6 • TEKS 6.5

6.5 "Proportionality. The student applies mathematical process standards to solve problems involving proportional relationships. The student is expected to: represent mathematical and real-world problems involving ratios and rates using scale..."

NAME _____

DATE _____

CONNECT THE PARTS

A percent is a fraction with 100 as its denominator. Use $\text{part} = \text{decimal percent} \times \text{whole}$ when you know the whole, then check that your answer makes sense for the size of the percent.

WORKED EXAMPLE

The bar shows the part of a robotics club that chose blue team shirts. What percent chose blue?

Blue shirt choices



1. Write the shaded part as $4/10$.
2. Make a denominator of 100: $4/10 = 40/100$.
3. Read $40/100$ as 40%.

Answer: 40%**PRACTICE** 4 problems

- 1** At a school esports event, 25% of 48 players signed up for a strategy game. How many players signed up?

ANSWER _____

- 2** Eighteen students, which is 30% of the art club, brought sketchbooks. How many students are in the art club?

ANSWER _____

- 3** Fourteen of 56 game designs were posted on the class website. What percent of the designs were posted? Show a fraction or proportion.

ANSWER _____

- 4** At a school bake sale, $3/5$ of the muffins were chocolate. Write this part as a fraction, decimal, and percent.

ANSWER _____

APPLY IT Show your work

- 1** The tape shows accepted entries for a student video contest. What percent of the entries were accepted?

Contest entries

36 accepted	
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 80 entries

ANSWER _____

- 2** A game store lists a controller bundle for \$150 and offers 28% off. What is the discount, and what is the sale price?

WORK SPACE

ANSWER _____

CHALLENGE One step up

The bar shows the part of playlist votes for one song. A student says the shaded part is $\frac{3}{8}$, 0.375, and 37.5%. Are all three names for the same part? Explain.



WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	At a school esports event, 25% of 48 players signed up for a strategy game. How many players signed up?	12 players
2	Eighteen students, which is 30% of the art club, brought sketchbooks. How many students are in the art club?	60 students
3	Fourteen of 56 game designs were posted on the class website. What percent of the designs were posted? Show a fraction or proportion.	25%
4	At a school bake sale, $\frac{3}{5}$ of the muffins were chocolate. Write this part as a fraction, decimal, and percent.	$\frac{3}{5} = 0.6 = 60\%$

PART 2 • APPLY IT

1. **45%** Use part/whole: $\frac{36}{80} = \frac{45}{100}$. Therefore, 45% of the entries were accepted.
2. **\$42 discount; \$108 sale price** Find 28% of 150: $0.28 \times 150 = 42$. Subtract 42 from 150 to get 108.

CHALLENGE

Yes. $\frac{3}{8} = 0.375 = 37.5\%$, so all three name the same part of the whole.

Accept equivalent fraction, decimal, and percent forms when they represent the same value. For money, accept answers with or without dollar signs if the discount and sale price are correct.