

Ratio Form Switch

Show one amount in several useful forms.

GRADE 6 • TEKS 6.4.E

6.4.E "represent ratios and percents with concrete models, fractions, and decimals;"

NAME _____

DATE _____

SWITCH THE FORM

A percent names a number of parts out of 100. To change a percent to a fraction, write it over 100 and simplify, then move the decimal point two places left to write a decimal. A part-to-whole ratio can be written as a fraction, then changed to a decimal and a percent.

WORKED EXAMPLE

Write 35% as a fraction in simplest form and as a decimal.

- 35% means $35/100$.
- Divide the numerator and denominator by 5: $35/100 = 7/20$.
- Move the decimal point two places left:
 $35\% = 0.35$.

Answer: $7/20$ and 0.35

PRACTICE 6 problems

- 1** Write 18% as a fraction in simplest form and as a decimal.

ANSWER _____

- 2** Write 0.64 as a percent and as a fraction in simplest form.

ANSWER _____

- 3** The ratio of raisins to all trail mix pieces is 3:5. Write the ratio as a fraction, a decimal, and a percent.

ANSWER _____

- 4** A bar has 42 of its 50 equal parts shaded. Write the shaded part as a fraction in simplest form, a decimal, and a percent.

ANSWER _____

- 5** A ribbon is split into 25 equal sections. Three sections are green. Write the green part as a fraction, a decimal, and a percent.

ANSWER _____

- 6** Write 0.125 as a fraction in simplest form and as a percent.

ANSWER _____

APPLY IT Show your work

- 1** For a lunch survey, 21 of 30 students choose to have music playing in the cafeteria. Write the part-to-whole comparison as a simplified ratio, fraction, decimal, and percent.

WORK SPACE

ANSWER _____

- 2** At a game club, 9 of 24 students choose puzzle games as their favorite type. Write the part-to-whole comparison as a simplified ratio, fraction, decimal, and percent.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A school library says that 45% of its 80 new books are graphic novels. How many graphic novels are there? Also write 45% as a fraction in simplest form and as a decimal.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write 18% as a fraction in simplest form and as a decimal.	9/50 and 0.18
2	Write 0.64 as a percent and as a fraction in simplest form.	64% and 16/25
3	The ratio of raisins to all trail mix pieces is 3:5. Write the ratio as a fraction, a decimal, and a percent.	3/5, 0.6, and 60%
4	A bar has 42 of its 50 equal parts shaded. Write the shaded part as a fraction in simplest form, a decimal, and a percent.	21/25, 0.84, and 84%
5	A ribbon is split into 25 equal sections. Three sections are green. Write the green part as a fraction, a decimal, and a percent.	3/25, 0.12, and 12%
6	Write 0.125 as a fraction in simplest form and as a percent.	1/8 and 12.5%

PART 2 • APPLY IT

- 7:10, 7/10, 0.7, and 70%** Simplify $21/30$ by dividing both numbers by 3 to get $7/10$. Then write $7/10$ as 0.7 and 70%.
- 3:8, 3/8, 0.375, and 37.5%** Simplify $9/24$ by dividing both numbers by 3 to get $3/8$. Divide 3 by 8 to get 0.375, then multiply by 100 for 37.5%.

CHALLENGE

36 graphic novels; 9/20; 0.45

Require simplified fractions and ratios when the prompt asks for them. Accept equivalent decimal notation with or without a leading zero.