LESSON MAKER PRO

Number Form Switch

Move between fractions, decimals, and percents.

GRADE 7 · 7.NR.1.10

7.NR.1.10 "Convert rational numbers between forms to include fractions, decimal numbers and percentages, using understanding of the part divided by the whole. Know that the decimal form of a rational number terminates in 0s or eventually repeats."

NAME _____ DATE _____

PARTS, DECIMALS, PERCENTS

A fraction shows a part divided by a whole, so divide the numerator by the denominator to make a decimal. Multiply a decimal by 100 to make a percent, and divide a percent by 100 to make a decimal. A rational number's decimal either ends or has a digit pattern that repeats.

WORKED EXAMPLE

Write 7/16 as a decimal and a percent.

1. Divide 7 by 16.
2. 7/16 = 0.4375.
3. Multiply 0.4375 by 100 to write a percent.

Answer: 0.4375 and 43.75%

PRACTICE 6 problems

1 Write 3/8 as a decimal and a percent.

ANSWER _____

2 Write 0.62 as a fraction in simplest form and a percent.

ANSWER _____

3 Write 45% as a fraction in simplest form and a decimal.

ANSWER _____

4 Write 5/6 as a decimal and a percent. Use ... to show the repeating digits.

ANSWER _____

5 Write 1.25 as a fraction in simplest form and a percent.

ANSWER _____

6 Write 11/12 as a decimal and a percent. Use ... to show the repeating digits.

ANSWER _____

APPLY IT Show your work

1 A music app shows that 13 of 20 songs in a playlist are saved for offline listening. Write the part saved as a fraction, decimal, and percent.

WORK SPACE

ANSWER _____

2 A hoodie was marked down by $9.60 from its original price of $24. What fraction of the original price was the discount? Write the fraction in simplest form, then write the decimal and percent.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A survey found that 17 of 30 students want a later start time. Write the fraction in simplest form, its decimal, and its percent. Then explain why the decimal repeats instead of terminating.

WORK SPACE AND ANSWER

ANSWER KEY

Number Form Switch

GRADE 7 · 7.NR.1.10

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write 3/8 as a decimal and a percent.	**0.375, 37.5%**
2	Write 0.62 as a fraction in simplest form and a percent.	**31/50, 62%**
3	Write 45% as a fraction in simplest form and a decimal.	**9/20, 0.45**
4	Write 5/6 as a decimal and a percent. Use ... to show the repeating digits.	**0.833..., 83.333...%**
5	Write 1.25 as a fraction in simplest form and a percent.	**5/4, 125%**
6	Write 11/12 as a decimal and a percent. Use ... to show the repeating digits.	**0.9166..., 91.666...%**

PART 2 · APPLY IT

1. **13/20, 0.65, 65%** Divide 13 by 20 to get 0.65. Multiply 0.65 by 100 to get 65%.
2. **2/5, 0.4, 40%** Write the discount as 9.60/24, which simplifies to 2/5. Dividing gives 0.4, and 0.4 equals 40%.

CHALLENGE

17/30, 0.5666..., 56.666...%. The decimal repeats because after 0.5, the remainder produces 6 again and again when dividing by 30.

Accept equivalent fractions that are simplified when the prompt asks for simplest form. Accept repeating decimals shown with an ellipsis or a bar over the repeating digit or digits.