LESSON MAKER PRO

Number Form Flip

Rewrite rational numbers to solve problems.

GRADE 7 · MA.7.NSO.1.2

MA.7.NSO.1.2 "Rewrite rational numbers in different but equivalent forms including fractions, mixed numbers, repeating decimals and percentages to solve mathematical and real-world problems."

NAME _____ DATE _____

CHANGE THE FORM

A rational number can be written as a fraction, decimal, mixed number, or percent without changing its value. To change a decimal to a percent, multiply by 100. A fraction whose simplified denominator has only factors of 2 and 5 terminates, while some other fractions repeat.

WORKED EXAMPLE

Rewrite 4/9 as a decimal and a percent.

1. Divide 4 by 9: 4/9 = 0.444...
2. Multiply the decimal by 100: 0.444... x 100 = 44.444...
3. Write the percent symbol.

Answer: 0.444... and 44.444...%

PRACTICE 6 problems

1 Rewrite 3/5 as a decimal and a percent.

ANSWER _____

2 Rewrite 0.125 as a fraction in simplest form and as a percent.

ANSWER _____

3 Rewrite 7/2 as a mixed number, decimal, and percent.

ANSWER _____

4 Rewrite 0.666... as a fraction in simplest form and as a percent.

ANSWER _____

5 Rewrite 15% as a decimal and a fraction in simplest form.

ANSWER _____

6 Rewrite 5/6 as a decimal and a percent.

ANSWER _____

APPLY IT Show your work

1 At an esports club, 3/8 of 32 members signed up for a tournament. Rewrite 3/8 as a percent. Then find how many members signed up.

WORK SPACE

ANSWER _____

2 A game download normally costs $36. A sale takes 16 2/3% off the price. Rewrite the percent as a fraction, then find the discount and sale price.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A student says that 0.333... is equal to 1/3. Is the student correct? Explain by using x to rewrite the repeating decimal as a fraction.

WORK SPACE AND ANSWER

ANSWER KEY

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Rewrite 3/5 as a decimal and a percent.	**0.6 and 60%**
2	Rewrite 0.125 as a fraction in simplest form and as a percent.	**1/8 and 12.5%**
3	Rewrite 7/2 as a mixed number, decimal, and percent.	**3 1/2, 3.5, and 350%**
4	Rewrite 0.666... as a fraction in simplest form and as a percent.	**2/3 and 66.666...%**
5	Rewrite 15% as a decimal and a fraction in simplest form.	**0.15 and 3/20**
6	Rewrite 5/6 as a decimal and a percent.	**0.833... and 83.333...%**

PART 2 · APPLY IT

1. **37.5%; 12 members** Rewrite 3/8 as 0.375, or 37.5%. Find 3/8 of 32: 32 ÷ 8 = 4, and 4 x 3 = 12.
2. **1/6; $6 discount; $30 sale price** 16 2/3% is 1/6. One sixth of $36 is $6, and $36 - $6 = $30.

CHALLENGE

Yes. Let x = 0.333.... Then 10x = 3.333.... Subtract: 10x - x = 3, so 9x = 3 and x = 1/3.

Accept equivalent notation for repeating decimals, such as 0.(6), if it clearly shows the repeating digit. Fractions should be in simplest form unless the item asks for another form.