GRADE FIVE MATHEMATICS

DIVIDING SIMPLE FRACTIONS AND WHOLE NUMBERS

LEARNING OBJECTIVES

At the end of the lesson, students are expected to:

1. Understand how to divide a whole number by a fraction and vice versa

2. Learn how to divide simple fractions by other simple fractions

FRACTION

Fractions represent the parts of a whole or collection of objects. A fraction has two parts. The number on the top of the line is called the numerator. It tells how many equal parts of the whole or collection are taken. The number below the line is called the denominator. It shows the total number of equal parts the whole is divided into or the total number of the same objects in a collection

HOW TO DIVIDE A WHOLE NUMBER BY A FRACTION

STEP 1: CONVERT THE WHOLE NUMBER TO A FRACTION

To convert a whole number to a fraction, simply place the whole number over 1

Example

- If the whole number is 5, then as a fraction, it is 5/1.
- If the whole number is 12, then as a fraction, it is 12/1

The denominator is 1 because any number divided by 1 remains the same number.

STEP 2: FIND THE RECIPROCAL OF THE FRACTION BEING DIVIDED BY.

To find the reciprocal of a fraction, simply swap the numerator (top number) and the denominator (bottom number)

<u>Example</u>

- The reciprocal of 3/4 is 4/3.
- The reciprocal of 7/2 is 2/7

If you're dividing by a fraction, you multiply by its reciprocal.

STEP 3: MULTIPLY THE WHOLE NUMBER BY THE RECIPROCAL.

For example, you want to multiply 8 by the reciprocal of 2/3.

1. **The whole number 8 as a fraction is 8/1**
2. **The reciprocal of 2/3 is 3/2.**
3. **Now, multiply 8/1 by 3/2.**

8/1×3/2 = 8×3= 24 and 1×2=2

So, 8 ÷ 2/3=24/2

STEP 4: SIMPLIFY THE RESULT.

Reduce the answer to the lowest term, if necessary. by dividing the result

Example

24/2

24 ÷ 2 = 12

So the simplified answer of 24/2 is 12
therefore 8 ÷ 2/3 = 12

HOW TO DIVIDE A FRACTION BY A FRACTION

STEP 1: ENSURE BOTH FRACTIONS ARE IN PROPER FORM

- A proper fraction means the numerator (top number) is smaller than the denominator (bottom number).
- If you're working with improper fractions (numerator greater than or equal to the denominator), that's fine, but both should still be in fraction form

Example,

if you're dividing 3/4 by 2/5, both are proper fractions

Example,

For 2/5 the reciprocal is 5/2

STEP 2: FIND THE RECIPROCAL OF THE SECOND FRACTION

The reciprocal of a fraction is obtained by swapping the numerator and the denominator.

STEP 3: MULTIPLY THE NUMERATORS AND DENOMINATORS

Now multiply 3/4 by 5/2

$$3/4 \times 5/2 = 3x5 = 15 \quad 4x2 = 8$$

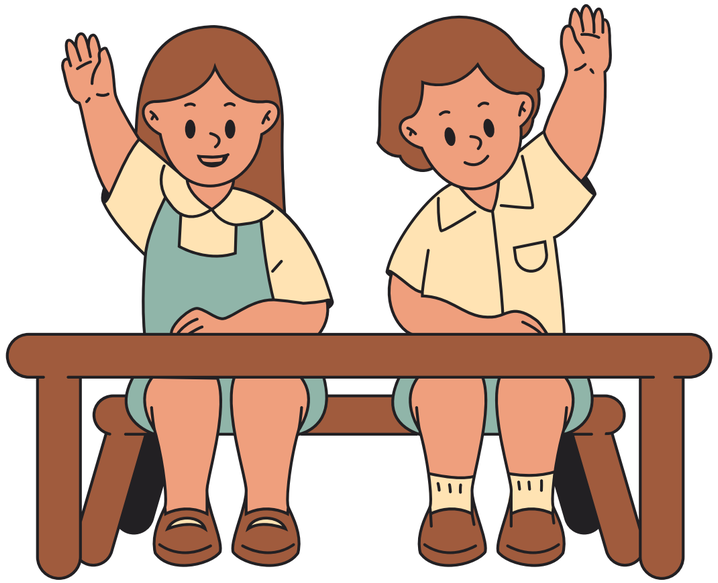
So $3/4 \div 5/2 = 15/8$

STEP 4: SIMPLIFY THE RESULT.

Check if the resulting fraction can be simplified, but in this case, 15/8 is already in its simplest form.

PRACTICE ACTIVITY

QUESTIONS AND ANSWERS



THANK YOU FOR LISTENING!

I hope you learn something new today!