

# How to Divide Fractions: A Step-by-Step Guide

Dividing fractions can seem challenging at first, but with the right steps, it becomes a straightforward process. Here's how to do it:

## Step 1: Understand the Rule of Dividing Fractions

To divide one fraction by another, you need to multiply the first fraction by the reciprocal of the second fraction. The reciprocal of a fraction is obtained by flipping the numerator (top number) and denominator (bottom number).

## Step 2: Write Down the Fractions

Let's say you want to divide the fraction  $\frac{3}{4}$  by  $\frac{2}{5}$ . Write this as:

$$\frac{3}{4} \div \frac{2}{5}$$

## Step 3: Find the Reciprocal

The reciprocal of  $\frac{2}{5}$  is  $\frac{5}{2}$ . Write this down:

## Step 4: Change Division to Multiplication

Now, change the division sign to a multiplication sign and write the reciprocal:

$$\frac{3}{4} \times \frac{5}{2}$$

## Step 5: Multiply the Fractions

Multiply the numerators together and the denominators together:

$$(3 \times 5) / (4 \times 2) = \frac{15}{8}$$

## Step 6: Simplify the Result (if necessary)

The fraction  $\frac{15}{8}$  is already in its simplest form. However, if you want to convert it to a mixed number, you can do the following:

Divide 15 by 8 to get 1 with a remainder of 7, so it can be expressed as:

$$1 \frac{7}{8}$$

## Conclusion

So, when dividing fractions, remember to multiply by the reciprocal, simplify if necessary, and express it in the desired format. With practice, you'll find dividing fractions is a breeze!