

MULTIPLYING FRACTIONS

Multiplying fractions is the operation of multiplying two or more fractions together to find a product.

Multiplying fractions is used when finding the area of various shapes or when making half of a recipe. **A fraction can be multiplied by another fraction, a whole number or a mixed number.**

How to use multiplying fractions:

- To multiply fractions, simply multiply the numerators first to find the resulting numerator and then the denominators to find the resulting denominator. When multiplying fractions, **the resulting fraction should always be reduced to lowest terms** if possible.

Example: $\frac{4}{5} \times \frac{3}{9} = \frac{(4 \times 3)}{(5 \times 9)} = \frac{12}{45}$

- Some cross-cancellation can be done before multiplying. This means you can cancel out a common factor between the numerator of one fraction and the denominator of another fraction before multiplying.



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Example: $\frac{8}{15} \times \frac{3}{16} = \frac{\cancel{8}^2}{15} \times \frac{3}{\cancel{16}_4} = \frac{2}{5} \times \frac{1}{2} = \frac{1}{10}$

- When **multiplying a fraction by a whole number**, turn the whole number into a fraction by making the whole number the numerator and making 1 the denominator and then multiply. When multiplying a fraction by a mixed number, turn the mixed number into an improper fraction and then multiply.
- To turn **a mixed number into an improper fraction**, multiply the denominator by the whole number then add the numerator. The result is the new numerator and the denominator stays the same.

Try this!

1. Multiply the following fractions:

$2/3 \times 4/5 =$

$7/8 \times 4/9 =$

$6/9 \times 3/4 =$

$4/12 \times 3/16 =$

$1/3 \times 4 =$

$5/9 \times 6 =$

$5/6 \times 2 \frac{2}{3} =$

$7/10 \times 3 \frac{4}{11} =$



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