

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 common factors between the numerator of one fraction and the denominator of another fraction before multiplying.



PREVIEW

Please login or register to download the printable version of this study guide.

www.newpathlearning.com

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:

$2/3 \times 4/5 =$

$7/8 \times 4/9 =$

$6/9 \times 3/4 =$

$4/12 \times 3/16 =$

$1/3 \times 4 =$

$5/9 \times 6 =$

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

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



PREVIEW

Please login or register to download the
printable version of this study guide.

www.newpathlearning.com