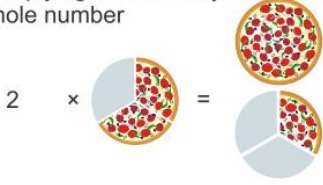



Multiplying Fractions

To multiply fractions

1. Turn all mixed fractions into improper fractions
2. Multiply the numerators
3. Multiply the denominators
4. Reduce or simplify the product and turn improper fractions into mixed fractions

<p>Multiplying a fraction by a whole number</p>  $2 \times \frac{2}{3} = 1\frac{1}{3}$ <p>Multiply the whole number with the numerator</p> $2 \times \frac{2}{3} = \frac{4}{3}$ <p>Convert into mixed fraction</p> $= 1\frac{1}{3}$	<p>Multiplying a fraction by a fraction</p>  $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$ <p>Multiply numerator with numerator and denominator with denominator</p> $\frac{1}{2} \times \frac{1}{3} = \frac{1 \times 1}{2 \times 3} = \frac{1}{6}$
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Dividing fractions

The multiplicative inverse, what is it?

Two numbers with a product of 1

Multiplicative Inverse



$$\frac{7}{1} * \frac{1}{7} = \frac{7}{7}$$

$$\frac{7}{7} = 1$$

Also called reciprocals

To divide fractions

1. Turn all mixed fractions into improper fractions
2. Multiply the first fraction by the multiplicative inverse of the second fraction

<p>Dividing a fraction by a whole number</p>  $2 \div \frac{2}{3} = 3$ <p>Denominator of the whole number is one</p> $= \frac{2}{1} \div \frac{2}{3} = \frac{2}{\frac{1}{3}}$ <p>Inverse the divisor and multiply the fractions</p> $= \frac{2}{1} \times \frac{3}{2} = \frac{6}{2} = 3$	<p>Dividing a fraction by fraction</p>  $\frac{1}{2} \div \frac{1}{6} = 3$ <p>How many $\frac{1}{6}$ are in $\frac{1}{2}$?</p> $\frac{1}{2} \div \left(\frac{1}{6}\right) = \frac{1}{2} \times \frac{6}{1}$ <p>Inverse the divisor and multiply the fractions</p> $\frac{6}{2} = 3$
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