

## Using the Simplified Form

To learn how to recognize and create the simplified form of a fraction using factors.

### Pay Attention To:

- Examples of fractions that show the same amount
- Steps that involve using factors
- What makes a fraction the simplified form
- Clues that a fraction cannot be simplified further

# simplified form

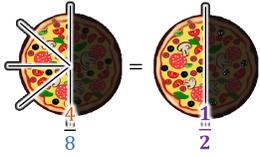
①

$\frac{4}{8}$	factors of 4	factors of 8
	1 4	1 8
	2 2	2 4

②

$\frac{4}{8}$	factors: 1, 2, 4	greatest common factor
$\frac{4}{8}$	factors: 1, 2, 4, 8	

③

$\frac{4}{8}$	$\div 4$	$\frac{1}{2}$	
$\frac{4}{8}$	$=$	$\frac{1}{2}$	
$\frac{4}{8}$	$\div 4$	$\frac{1}{2}$	

simplified form

✓ simplified	=	✗ NOT simplified
$\frac{1}{2}$	=	$\frac{7}{14}$
$\frac{4}{5}$	=	$\frac{20}{25}$
$\frac{3}{8}$	=	$\frac{15}{40}$

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A fraction can look different but mean the same thing. For example,  $\frac{6}{8}$  and  $\frac{3}{4}$  show the same part of something. These are **equivalent fractions**. One of them,  $\frac{3}{4}$ , is the **simplified form** because it has smaller numbers.

To find the **simplified form**, we can use **factors**. A **factor** is a number we can use to divide evenly. If we divide the top and the bottom of a fraction by the same **factor**, we get a smaller fraction that means the same thing.

**Simplified** fractions help us see how numbers go together. Even if fractions look different, they can still show the same amount. Learning how to find the **simplified form** is a helpful math skill.

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## simplified form

**1**

$\frac{4}{8}$	factors of 4	factors of 8
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	2 2	2 4

**2**

$\frac{4}{8}$	factors: 1, 2, 4	greatest common factor
$\frac{8}{8}$	factors: 1, 2, 4, 8	

**3**

$\frac{4}{8}$	$\div 4$	$\frac{1}{2}$	simplified form
$\frac{4}{8}$	$=$	$\frac{1}{2}$	
$\frac{4}{8}$	$\div 4$	$\frac{2}{2}$	

✓	✗
simplified	NOT simplified
$\frac{1}{2}$	$= \frac{7}{14}$
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Sometimes, a fraction can be written in more than one way. For example,  $\frac{6}{8}$  and  $\frac{3}{4}$  show the same amount. These are called **equivalent fractions**. One of them,  $\frac{3}{4}$ , uses smaller numbers. That version is in **simplified form**.

To find the **simplified form**, we look for **factors** of the numbers. A **factor** is a number that divides evenly into another number. If we divide both the top and the bottom of a fraction by the same **factor**, we get an equivalent fraction that may be easier to work with.

We use this idea of **simplified** fractions in many parts of math. Understanding how to simplify helps us see that different-looking fractions can still mean the same thing. It also helps us think about how numbers are related.

Knowing how to use **factors** and recognize the **simplified form** is one way we build number sense in math.

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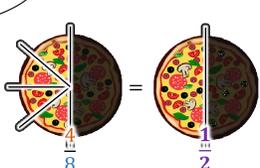
$\frac{4}{8}$	factors: 1, 2, 4	greatest common factor
$\frac{4}{8}$	factors: 1, 2, 4, 8	

③

$\frac{4}{8}$	$\div 4$	$\frac{1}{2}$	✓
$\frac{4}{8}$	$\div 4$	$\frac{2}{2}$	✗

simplified form

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In math, different fractions can represent the same quantity. For instance,  $\frac{6}{8}$  and  $\frac{3}{4}$  are **equivalent fractions** because they describe equal parts of a whole. The version that uses smaller numbers— $\frac{3}{4}$ —is considered the **simplified form**.

To simplify a fraction, we use **factors**, which are numbers that divide evenly into other numbers. By dividing both the numerator and denominator by the same **factor**, we create a fraction that is equivalent but expressed more simply.

Learning to write fractions in **simplified** form can help reveal patterns in numbers and strengthen our understanding of how fractions work. Even when two fractions look different, simplifying shows us how they are connected.