

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

factors of 4	factors of 8
1 4	1 8
2 2	2 4

②

$\frac{4}{8}$ → factors: 1, 2, 4
 $\frac{4}{8}$ → factors: 1, 2, 4, 8

greatest common factor

③

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

simplified form

✓

simplified

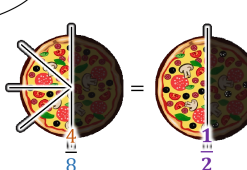
$\frac{1}{2} = \frac{7}{14}$

$\frac{4}{5} = \frac{20}{25}$

$\frac{3}{8} = \frac{15}{40}$

✗

NOT simplified



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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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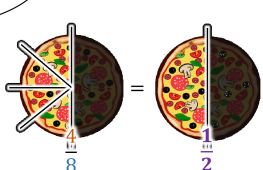
②

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

③

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

✓ simplified	=	✗ NOT simplified
$\frac{1}{2}$		$\frac{7}{14}$
$\frac{4}{5}$	=	$\frac{20}{25}$
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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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$\frac{4}{8}$	$\div 4$	$\frac{1}{2}$	simplified form
$\frac{4}{8}$	$\div 4$	$\frac{1}{2}$	
$\frac{4}{8}$	$\div 4$	$\frac{1}{2}$	



simplified

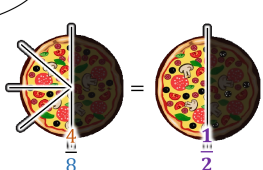


NOT simplified

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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.