



## Introduction to Fractions

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*Read the introduction to fractions and answer the following questions:*

1. What is a fraction? \_\_\_\_\_
2. Identify the numerator and denominator in the fraction  $\frac{3}{4}$ :  
Numerator: \_\_\_\_\_  
Denominator: \_\_\_\_\_
3. What is the difference between a proper fraction and an improper fraction?  
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## Simplifying Fractions

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*Simplify the following fractions:*

1. Simplify the fraction  $\frac{6}{8}$ : \_\_\_\_\_
2. Simplify the fraction  $\frac{4}{6}$ : \_\_\_\_\_
3. What is the greatest common divisor (GCD) of 12 and 18?  
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## Adding and Subtracting Fractions

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*Add and subtract the following fractions:*

1. Add the fractions  $\frac{1}{4}$  and  $\frac{1}{4}$ : \_\_\_\_\_
2. Subtract the fractions  $\frac{3}{4}$  and  $\frac{1}{4}$ : \_\_\_\_\_
3. Add the fractions  $\frac{2}{6}$  and  $\frac{1}{6}$ : \_\_\_\_\_

## Real-World Applications

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Solve the following real-world problems:

1. A recipe requires  $\frac{3}{4}$  cup of sugar. If you want to make half the recipe, how much sugar will you need? \_\_\_\_\_
2. A bookshelf has 5 shelves, and each shelf can hold  $\frac{3}{4}$  of a meter of books. If the bookshelf is currently empty, how many meters of books can be placed on it in total?  
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3. A water tank can hold 240 liters of water. If  $\frac{3}{4}$  of the tank is already filled, how many more liters of water can be added? \_\_\_\_\_

## Word Problems

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Solve the following word problems:

1. Tom has  $\frac{1}{4}$  of a pizza left over from last night. If he eats  $\frac{1}{8}$  of the remaining pizza, what fraction of the pizza is left? \_\_\_\_\_
2. A bakery sells 250 loaves of bread per day. If  $\frac{3}{5}$  of the loaves are sold in the morning, how many loaves are sold in the afternoon? \_\_\_\_\_
3. A group of friends want to share some candy equally. If they have 48 pieces of candy and there are 8 friends, how many pieces of candy will each friend get?  
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## Conclusion

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*Reflect on what you have learned about fractions and answer the following questions:*

1. What was the most challenging part of learning about fractions for you?  
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2. How do you think you can apply what you have learned about fractions in real-life situations?  
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3. What questions do you still have about fractions?  
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## Answer Key

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Check your answers with the answer key:

### Section 1:

1. A fraction is a way of representing part-whole relationships.
2. Numerator: 3, Denominator: 4
3. A proper fraction has a numerator less than the denominator, while an improper fraction has a numerator greater than or equal to the denominator.

### Section 2:

1.  $\frac{3}{4}$
2.  $\frac{2}{3}$
3. 6

### Section 3:

1.  $\frac{2}{4}$
2.  $\frac{2}{4}$
3.  $\frac{3}{6}$

### Section 4:

1.  $\frac{3}{8}$  cup
2. 3.75 meters
3. 60 liters

### Section 5:

1.  $\frac{1}{8}$
2. 150 loaves
3. 6 pieces

