# Understanding Fractions

What are Fractions?

A fraction represents a part of a whole. It is expressed as two numbers separated by a slash (e.g., 1/2).

The top number is called the numerator, and it represents the number of parts taken.

The bottom number is called the denominator, and it shows the total number of equal parts in the whole.

For example, if you divide a pizza into 4 equal slices and eat 1 slice, you have eaten 1/4 of the pizza.

Types of Fractions:

1. Proper Fractions: The numerator is smaller than the denominator (e.g., 3/4).

2. Improper Fractions: The numerator is greater than or equal to the denominator (e.g., 5/4).

3. Mixed Numbers: A whole number combined with a fraction (e.g., 1 3/4).

Key Operations with Fractions:

1. Adding Fractions: If denominators are the same, add the numerators (e.g., 1/4 + 2/4 = 3/4).

2. Subtracting Fractions: If denominators are the same, subtract the numerators (e.g., 3/4 - 1/4 = 2/4).

3. Multiplying Fractions: Multiply the numerators and the denominators (e.g., 1/2 × 3/4 = 3/8).

4. Dividing Fractions: Multiply the first fraction by the reciprocal of the second (e.g., 1/2 ÷ 3/4 = 1/2 × 4/3 = 4/6 or 2/3).

Practice Questions:

1. What fraction represents eating 2 out of 5 slices of a cake?

2. Add 1/3 and 1/6. Simplify your answer.

3. Multiply 2/5 by 3/4. What is the result?

4. Convert 7/4 into a mixed number.

5. Subtract 5/8 from 3/4. Simplify your answer.

Fractions are everywhere, from cooking to dividing a bill among friends. Mastering them is an essential math skill!