

Adding subtracting fractions involves combining fractions that have different denominators. To do this, we follow a few simple steps. Let's break it down:

Step 1: Understand What a Fraction Is

A fraction consists of two parts: the **numerator** (top number) and the **denominator** (bottom number). For example, in the fraction $\frac{1}{4}$, **1** is the numerator and **4** is the denominator.

Step 2: Find a Common Denominator

Before adding fractions, we need to make sure the denominators are the same. This is called finding a **common denominator**. Let's say we have two fractions: $\frac{1}{3}$ and $\frac{1}{6}$. The denominators are **3** and **6**.

- The common denominator between 3 and 6 is 6.

Step 3: Adjust the Fractions

Now we need to convert the fractions so they both have the common denominator of 6:

- For $\frac{1}{3}$, we multiply both the numerator and denominator by 2. So, $1 \times 2 = 2$ and $3 \times 2 = 6$, giving us $\frac{2}{6}$.
- The fraction $\frac{1}{6}$ already has the common denominator. So we keep it as $\frac{1}{6}$.

Step 4: Add the Fractions

Now that we have $\frac{2}{6}$ and $\frac{1}{6}$, we can add them together. We simply add the numerators and keep the same denominator:

- Numerator: $2 + 1 = 3$
- Denominator: **6**

Putting them together, we get $\frac{3}{6}$.

Step 5: Simplify the Fraction (if necessary)

Sometimes, fractions can be simplified. For $\frac{3}{6}$, we can divide the numerator and denominator by 3:

- Numerator: $3 \div 3 = 1$
- Denominator: $6 \div 3 = 2$

This gives us the simplified fraction of $\frac{1}{2}$.

Conclusion

So, when you want to add fractions with different denominators, remember: find a common denominator, adjust the fractions, add the numerators, and simplify if you can! Practice with different fractions to get the hang of it.