

Step-by-Step Guide to Adding Fractions ($\frac{1}{2} + \frac{1}{6}$)

Adding fractions can be easy once you understand the steps! Here's how to add $\frac{1}{2}$ and $\frac{1}{6}$.

Step 1: Find a Common Denominator

Fractions need a common denominator to be added together. The denominators in this case are **2** and **6**.

The least common multiple (LCM) of **2** and **6** is **6**. So, we will use **6** as our common denominator.

Step 2: Convert the Fractions

Next, we need to convert each fraction to have the common denominator of **6**.

- For $\frac{1}{2}$: To change the denominator from **2** to **6**, we multiply both the top and bottom of the fraction by **3** (because $2 * 3 = 6$).
- This gives us: $1 \times 3 = 3$, so $\frac{1}{2} = \frac{3}{6}$.
- For $\frac{1}{6}$: The denominator is already **6**, so we don't need to change it. Therefore, $\frac{1}{6} = \frac{1}{6}$.

Step 3: Add the Converted Fractions

Now we can add the two fractions:

$$\frac{3}{6} + \frac{1}{6} = \frac{(3 + 1)}{6} = \frac{4}{6}$$

Step 4: Simplify the Result

The final fraction $\frac{4}{6}$ can be simplified. Both 4 and 6 can be divided by their greatest common divisor, which is **2**:

- $4 \div 2 = 2$
- $6 \div 2 = 3$

So, $\frac{4}{6}$ simplifies to $\frac{2}{3}$.

Final Answer

The sum of $\frac{1}{2} + \frac{1}{6}$ is $\frac{2}{3}$.