

ADDING FRACTIONS

How to Add Fractions

Fractions consist of two numbers. The top number is called the numerator. The bottom number is called the denominator.

$$\frac{\text{numerator}}{\text{denominator}}$$

To add two fractions with the same denominator:

- Add the numerators
- Place the sum over the common denominator.

Example: Find the **Sum of b**

- Add the numerators 2 and 4, which equals 6
- Place the sum over the common denominator
- The result is $\frac{6}{12}$

To add fractions

- **Find** the **Least Common Denominator**
- **Rename** the fractions to use the LCD
- **Add** the numerators of the fractions
- **Simplify** the Fraction

Example: Find the **Sum of $\frac{2}{9}$ and $\frac{3}{12}$**

- **Determine** the **Greatest Common Factor** of 9 and 12 which is 3
- Either **multiply** the denominators and divide by the GCF ($9 \times 12 = 108$, $108/3 = 36$) - OR - **Divide** one of the denominators by the GCF and multiply the answer by the other denominator ($9/3 = 3$, $3 \times 12 = 36$)
- **Rename** the fractions to use the Least Common Denominator ($\frac{2}{9} = \frac{8}{36}$, $\frac{3}{12} = \frac{9}{36}$)
- The **result** is $\frac{8}{36} + \frac{9}{36}$
- **Add** the numerators and put the sum over the LCD = $\frac{17}{36}$
- **Simplify** the fraction if possible. In this case it is not possible.

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Try This!

Add the following fractions:

$$\frac{1}{4} + \frac{2}{4} = \underline{\hspace{2cm}}$$

$$\frac{11}{20} + \frac{4}{20} = \underline{\hspace{2cm}}$$

$$\frac{1}{2} + \frac{1}{4} = \underline{\hspace{2cm}}$$

$$\frac{2}{10} + \frac{4}{5} =$$



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