Model Addition

Number line can help you add fractions.
Fractions that have the same denominator are called like fractions.

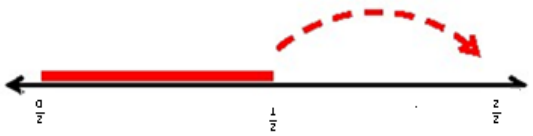
Find the sum.

$\frac{1}{2} + \frac{1}{2}$

· The denominator tells the number of equal parts the number line is divided into.

· The denominator is 2, so the number line is divided into 2 equal parts.

· Label the number line with $\frac{0}{2}$, $\frac{1}{2}$ and $\frac{2}{2}$



· Shade the part from $\frac{0}{2}$ to $\frac{1}{2}$. To add, move $\frac{1}{2}$ from $\frac{1}{2}$ to $\frac{2}{2}$, or 1.

· Since there are 2 equal parts in all, that means there are 2 out of 2 equal parts, or $\frac{2}{2}$.

So, $\frac{1}{2} + \frac{1}{2} = \frac{2}{2}$, or 1.

Before we can add any two or more fractions, first they must have the same denominators.

When you add like fractions, add only the numerators.

$$\frac{a}{c} + \frac{b}{c} = \frac{a + b}{c}$$

If the sum is not in lowest terms, it must be reduced to lowest terms.

$\frac{3}{6}+\frac{2}{6}=?$

3 parts shaded / 6 parts + 2 parts shaded / 6 parts = 5 parts shaded / 6 parts

$\frac{3}{6}+\frac{2}{6}=\frac{5}{6}$ → **add the numerators** → $\frac{3+2}{6}=\frac{5}{6}$

→ **write the denominator** →

Examples:

A- Model the sum. Record your answer.

1) $\frac{2}{5}+\frac{1}{5}$

$\frac{2}{5}+\frac{1}{5}=\frac{3}{5}$

2) $\frac{1}{7}+\frac{6}{7}$

$\frac{1}{7}+\frac{6}{7}=\frac{7}{7}=1$

3) $\frac{5}{12}+\frac{1}{12}$

$\frac{5}{12}+\frac{1}{12}=\frac{5+1}{12}=\frac{6}{12}=\frac{1}{2}$