

Adding Fractions with Different Denominators

When you are adding fractions with different denominators, convert at least one of the fractions so that they both have the same denominators.

Examples:

$$1. \frac{1}{2} + \frac{1}{6} =$$

First, find a common denominator.

Both 2 and 6 are factors of 6. For $\frac{1}{2}$, we multiply both the numerator and denominator by 3, which equals $\frac{3}{6}$.

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

Last, we simplify the answer to get $\frac{2}{3}$.

$$2. \frac{3}{8} + \frac{1}{4} =$$

Both denominators are factors of 8.

$$\frac{1}{4} \times 2 = \frac{2}{8}$$

$$\frac{3}{8} + \frac{2}{8} = \frac{5}{8}$$



Try the following equations yourself. Remember to simplify your answers.

$$1. \frac{1}{4} + \frac{4}{8} = \underline{\hspace{10em}}$$

$$2. \frac{4}{6} + \frac{4}{12} = \underline{\hspace{10em}}$$

3. $\frac{2}{9} + \frac{2}{3} =$ _____

4. $\frac{9}{20} + \frac{3}{10} =$ _____

5. $\frac{1}{4} + \frac{1}{2} =$ _____

6. $\frac{2}{5} + \frac{5}{10} =$ _____

7. $\frac{3}{4} + \frac{1}{2} =$ _____

8. $\frac{5}{10} + \frac{3}{5} + \frac{4}{20} =$ _____

9. $\frac{4}{6} + \frac{3}{12} =$ _____

10. $\frac{2}{3} + \frac{3}{4} =$ _____

11. $\frac{3}{4} + \frac{5}{12} =$ _____

12. $\frac{1}{2} + \frac{4}{11} =$ _____

$$13. \frac{1}{3} + \frac{4}{7} = \underline{\hspace{10cm}}$$

$$14. \frac{3}{5} + \frac{2}{4} = \underline{\hspace{10cm}}$$

$$15. \frac{12}{15} + \frac{2}{5} = \underline{\hspace{10cm}}$$

$$16. \frac{3}{4} + \frac{2}{8} + \frac{4}{12} = \underline{\hspace{10cm}}$$

