

Combining Like Terms

In an expression, **terms** are separated by addition and subtraction.

Example: The numeric expression $\frac{1}{2} + \frac{3}{4} - \frac{5}{8}$ has three terms: $\frac{1}{2}$, $\frac{3}{4}$, and $\frac{5}{8}$

None of these terms are **like terms** because we are counting halves, fourths, and eighths.

We can create like terms by representing the first two terms as eighths: $\frac{4}{8} + \frac{6}{8} - \frac{5}{8}$

We can then combine the like terms since we are now counting the same thing in each term.

Circle the terms in this algebraic expression: $x + 3y + 2x - 4y^2$

The terms _____ and _____ are _____ because they have the same _____ raised to the same power.

The terms _____, _____, and _____ are _____ because they have different _____ or the same _____ raised to a different power.

Are these terms like or unlike: $3x, 3y$ $7k, -3k$ $2x, -5x^3$

Model these expressions using algebra tiles, then simplify completely:

$$4x - 2x + 2y + 4$$

$$3x - 1 - 2xy + y + 6$$

$$5 + 2x^2 + 4x - x^2$$

Model each equation using algebra tiles. Solve the equation. Check your solution.

$$3x + 3 = x + 5$$

$$y - 3 = -y + 5$$

Solve each equation. Check your solution.

$$-(-3y + 6) - y = 5y + 12$$

Write and solve an equation for this sentence.

Five times a number added to six is fifteen less than twice that number.