

Term: A single number or variable, or the product of several numbers or variables, separated from another term by a + or – sign in an overall expression.

$$+2x + 3 - 4x$$

$$3x^2 + 6x - 2 + 3x - 8$$

Like Terms: Have exactly the same variables.

$$\begin{array}{l} 3x + 5x \\ \hline 8x \end{array}$$

$$4x^2 + 2x - x + 8$$

Simplify means to: 1 – Use Distributive Property to Eliminate Parenthesis

$$\begin{array}{l} \downarrow -3(5x-2) \\ 4 - 15x + 6 \end{array}$$

$$\begin{array}{l} 2(3x+4) \\ \hline 6x+8 \end{array}$$

2 – Combine Like Terms

$$4x^2 + 2x - x^2 + 3 = 3x^2 + 2x + 3$$

Simplify (You must show at least two steps)

1. $5x - 4 + x - 2x$

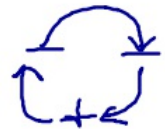
$$\begin{array}{l} 5x \\ x \\ -2x \\ \hline 4x - 4 \end{array}$$

2. $6 + 2 + 7y - 3$

$$\begin{array}{l} 5 + 7y \\ \hline 7y + 5 \end{array}$$

3. $3x + 4y + 5x + 2y$

$$8x + 6y$$



4. $7y^3 + 4y^2 - 3y^2$

$$4y^3 + 4y^2$$

5. $3(2a+3) - 5$

$$\begin{array}{l} 6a + 9 - 5 \\ \hline 6a + 4 \end{array}$$

6. $5w - 6(w-3)$

$$\begin{array}{l} 5w - 6w + 18 \\ \hline -w + 18 \end{array}$$

7. $1 - (5 - 4n)$

$$\begin{array}{l} 1 - 5 + 4n \\ -4 + 4n \\ \hline 4n - 4 \end{array}$$

8. $-2 + (-r - 4)(-10)$

$$\begin{array}{l} -2 + 10r + 40 \\ \hline 10r + 38 \end{array}$$

9. $-5(8x - 4) + 4x$

$$\begin{array}{l} -40x + 20 + 4x \\ \hline -36x + 20 \end{array}$$

10. $6a - (a - 3)$

$$6a - a + 3$$
$$5a + 3$$

11. $8x^2 + 3x + 4x^2 - x$

$$12x^2 + 2x$$

12. $7ab + 2ab + 3b$

$$9ab + 3b$$

13. $10y - 6y + 5x + 3x - 8$

$$8x + 4y - 8$$

14. $2(3x + 1) + 6(3y - 2)$

$$6x + 2 + 18y - 12$$

$$6x + 18y - 10$$

15. $7y^2 - 6y + 5x^2 + 3x^3 - 8y$

$$3x^3 + 5x^2 + 7y^2 - 14y$$

$$x^2 \cdot x^2$$
$$x \cdot x \cdot x \cdot x$$
$$x^4$$

$$x^2 + x^2$$
$$2x^2$$

