

Lesson Extra Practice:
Algebraic Expressions

Identify the terms and like terms in the expression

1. $-3c + 6 + 5c - 2$

$$1. \underline{-3c} + \underline{6} + \underline{5c} - \underline{2}$$

$$(-3c + 5c) + (+6 - 2)$$

$$2c + 4$$

$$2c + 4$$

/c

$$2. 4n^2 - 2.3n + 2n^2 - 5.6$$

$$\begin{aligned}
 & 2. \quad \underline{4n^2} - \underline{2.3n} + \underline{2n^2} - \underline{5.6} \\
 & (\underline{4n^2} + \underline{2n^2}) + |(-2.3n)| + |(-5.6)| \\
 & \quad 6n^2 - 2.3n - 5.6
 \end{aligned}$$

$$3. \frac{1}{5}x^3 - x^3 + 2x$$

$$3. \frac{1}{5}x^3 - x^3 + 2x$$

$$\left(\frac{1}{5}x^3 - 1x^3\right) + 2x$$

$$\left(\frac{1}{5}x^3 - \frac{5}{5}x^3\right) + 2x$$

$$\frac{4}{5}x^3 + 2x$$



$$\frac{1}{5}x^3 - 2x^3$$

$$\frac{1}{5}x^3 - \frac{10}{5}x^3$$

4. $-2.5 + s + 6.4s - 4s^2$

$$4. \quad \underbrace{-2.5} + \underbrace{s} + \underbrace{6.4s} - \underbrace{4s^2}$$

$$-2.5 + (\underbrace{1s} + \underline{6.4s}) + (-4s^2)$$

$$-2.5 + 7.4s - 4s^2$$

$$\begin{array}{r} 6.4 \\ + 1.0 \\ \hline 7.4 \end{array}$$

Simplify the expression. Then evaluate the expression when $x = 3$.

5. $-7x + 12x$

$$\begin{array}{r} 5. \quad \underline{-7x} + \underline{12x} \quad : \quad \underline{x=3} \\ \underline{-7(3)} + \underline{12(3)} \\ -21 + 36 \\ 15 \end{array}$$

$$\begin{array}{r} 5x \\ 5(3) \\ 15 \\ \hline \end{array}$$

Simplify the expression. Then evaluate the expression when $x = 3$.

6. $6x - 4 + 6 - 2x$

$$6. 6x - 4 + 6 - 2x \quad : \quad \underline{x = 3}$$

$$18 - 4 + \cancel{6} - \cancel{6}$$

$$14$$

~

$$4x + 2$$

$$12 + 2$$

$$14$$

~

Simplify the expression. Then evaluate the expression when $x = 3$.

7. $3x^2 + 5x - x^2$

$$7. \underline{3x^2} + 5x - \underline{x^2}$$

$$(3x^2 - x^2) + 5x$$

$$2x^2 + 5x$$



Simplify the expression. Then evaluate the expression when $x = 3$.

8. $x^2 - 3 + (x^2 - x)$

$$8. x^2 - 3 + (x^2 - x)$$

$$\underline{x^2 - 3} + \underline{x^2 - x}$$

$$2x^2 - 3 - x$$

$$2x^2 - 1x^1 - 3x^0$$

Simplify the expression. Then evaluate the expression when $x = 3$.

9. $3 - 2(4 + x) - 7$

$$9 \quad 3 - 2(4 + x) - 7$$

$$\underline{3} - 8 - 2x - 7$$

$$\underline{-5} - 2x - 7$$

$$-12 - 2x$$

Simplify the expression. Then evaluate the expression when $x = 3$.

10. $\frac{2}{3}x - \frac{1}{2} + 2x - x^2$

$$10. \frac{2}{3}x - \frac{1}{2} + 2x - x^2 \quad x = 3$$

$$\frac{2}{3}(\underline{3}) - \frac{1}{2} + \underline{2(3)} - (\underline{3})^2$$

$$\underline{2} - \frac{1}{2} + \underline{6} - \underline{9}$$

$$-1 - \frac{1}{2}$$

$$\frac{-2}{2} - \frac{1}{2}$$

$$\frac{-3}{2}$$

Simplify the expression. Then evaluate the expression when $x = 3$.

11. $6x^2 - 4 + 2(x^2 - 3)$

$$11. \quad \underline{6x^2 - 4} + \underline{2(x^2 - 3)}$$

$$\underline{6x^2 - 4} + \underline{2x^2 - 3}$$

$$8x^2 - 7 \quad x = 3$$

$$8(3)^2 - 7$$

$$8(9) - 7$$

$$72 - 7$$

$$65$$

Simplify the expression. Then evaluate the expression when $x = 3$.

12. $3(x^2 + 4) - 4x + 6$