

Lesson Extra Practice:  
Algebraic Expressions

Identify the terms and like terms in the expression

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

1.  $\underbrace{-3c}_{\text{green}} + \underbrace{6}_{\text{blue}} + \underbrace{5c}_{\text{green}} + \underbrace{-2}_{\text{blue}}$

$\underbrace{(-3c + 5c)}_{\text{green}} + \underbrace{(+6 - 2)}_{\text{blue}}$   
 $2c + 4$

$2c + 4$   
}

$(+)(+) = +$

$(-)(-) = +$

$(+)(-) = -$

$(-)(+) = -$

Combine Terms:

$(+ \text{Big}) + (- \text{Small}) = +$

$(- \text{Big}) + (+ \text{Small}) = -$

$(+ \text{Big}) - (- \text{Small}) = +$

$(- \text{Big}) - (+ \text{Small}) = -$

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

2.  $\underline{4n^2} - \underline{2.3n} + \underline{2n^2} - \underline{5.6}$

$6n^2 - 2.3n - 5.6$



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

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

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

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



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

$$\frac{1}{5} + \frac{10}{5}$$

$$\frac{2}{3} + 3$$

$$\frac{2}{3} + \frac{9}{3}$$

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

$$4. \quad \underline{-2.5} \quad \underline{+1s} \quad \underline{+6.4s} \quad \underline{-4s^2}$$

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

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

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

5.  $-7x + 12x$

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

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

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

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

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

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



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

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

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

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

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

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

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

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