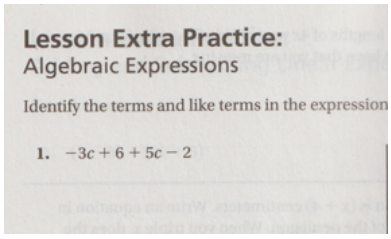

Lesson Extra Practice:
Algebraic Expressions

Identify the terms and like terms in the expression

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

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

$(2c) + (+4)$

$2c + 4$

$(+)(+) = +$

$(-)(-) = +$

$(+)(-) = -$

$(-)(+) = -$

Like Terms - same variable, variable has same exponet

Unlike Terms - not the same variable, not the same exponet

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

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

$(+4n^2 + 2n^2) + (-2.3n) + (-5.6)$

$(6n^2) + (-2.3n) + (-5.6)$

$6n^2 - 2.3n - 5.6$

(+Big) + (-Small) = (+)

(-Big) + (+Small) = (-)

(+Big)(+)(Small) =

(+Big) ± (±Small) = (+)

(-Big) − (+Small) =

(Big) + (-small) = (-)

Addition:

1) Signs Alike Add
   Keep the same sign

2) Signs unlike Subtract
   take the sign of the larger

$(-4) + (2) = -2$

$(-4) - (2) =$

$(-4) + (+2) = -2$

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

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

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

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

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

$\frac{1}{5} - \frac{1}{1}$

$\frac{1}{5} - \frac{5}{5}$

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

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

$\frac{2}{3} - 7$

$\frac{2}{3} - \frac{21}{3}$

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

$-2.5x^0 + 1s^1 + 6.4s^1 - 4s^2$

$-4 \cdot s \cdot s$

$-2.5s^0 + 7.4s^1 - 4s^2$

1.0

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

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

5. $-7x + 12x$

5. $-7x + 12x$ $x: 3$

$+5x$

$5(3)$

15

$-7(3) + 12(3)$

$-21 + 36$

15

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

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

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

$6(3) - 4 + 6 - 2(3)$

$18 - 4 + 6 - 6$

14

$x = 3$

$4x + 2$

$4(3) + 2$

$12 + 2$

14

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

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

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

$3 \cdot x \cdot x + 5x - x \cdot x$

$2x^2 + 5x$

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

$18 + 15$

33

$x = 3$

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

$3(3)(3) + 5(3) - (3)(3)$

$27 + 15 - 9$

33

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

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

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

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

$9 - 3 + 6$

12

$x = 3$

$2x^2 - 3 - x$

$2(3)^2 - 3 - 3$

$18 - 3 - 3$

12

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

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

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

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

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

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

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

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

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