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*I can **write** and **evaluate** expressions.*

Terms: A number, a _____variable_____ or the product of a number and a variable.

Like Terms: Have the same ___variable___ and/or the same ___variable___ factors

Coefficient: the ___number___ in front of the variable

Like Terms	Unlike Terms
$2x$ and $3x$	$2x$ and $2y$
xy and $4xy$	$2xy$ and $6x$
$-6y$ and $2y$	$4x^2$ and $4x$

*When a variable does not have a number in front of it (like c), there is an understood __1__ in front of the variable

An expression is in ___simplest form___ when it has no ___like terms___ and no ___parenthesis___.

To simplify expressions with multiple terms, ___add___ or ___subtract___ the coefficients of like terms.

Examples: One Variable

Identify the terms in the expression, then combine the like terms.

1) $-13c + c$

   Simplify ___$-12c$___

2) $2x + 3x - 2 + 4x + 5$

   Simplify ___$9x + 3$___

3) $0.3f - f + 10 + 0.7f + 3f - 4$

   Simplify ___$3f + 6$___

4) $m - \frac{2}{5} - 5m + \frac{1}{6}$

   Simplify ___$-4m - \frac{7}{30}$___

5) $3f^2 - f + 10 + 2f^2 + f - 4$

   Simplify ___$5f^2 + 6$___

6) $-a^2 - \frac{1}{2} - 5a^2 + \frac{1}{6} - 2a$

   Simplify ___$-6a^2 - 2a - \frac{1}{3}$___

Examples: Two or More Variables

Identify the terms in the expression, then combine the like terms.

1) $0.3a - b + 0.9a + 3b$

Simplify $1.2a + 2b$

2) $8f - 2t + 3f + t$

Simplify $11f - t$

Examples: Products of Two Variables

Identify the terms in the expression, then combine the like terms.

1) $3x + 2xy - 2.6x + 7xy + 7$

Simplify $9xy + 0.4x + 7$

2) $3ab - a - 7 + 5ab + 5a + 4$

Simplify $8ab + 4a - 3$

3) $3ab + 4b - 3.5ab + ab - 5b + b$

Simplify $0.5ab$

4) $3xy + y - \frac{1}{4}x + xy + 6x + \frac{1}{2}y$

Simplify $4xy + 5\frac{3}{4}x + 1\frac{1}{2}y$

Test Example:

1) Which of the following are equivalent to the following expression:

$2a - 4b + (-3a) + 9b + (-4a) + 6b$

Select ALL that apply.

$3a + 11b$

A. 9a + 19b
B. 3a + 11b
C. 19a + 9b
D. (6a – 3a) + (15b – 4b)
E. 11b + 3a
F. (2 – 3 + 4 + 6)a + (-4 + 9 + 6)b

2) Select all that apply. Which of the following are equivalent to:

$2xy + 3x - 2x - 5 + xy$

$3xy + x - 5$

A. xy + 5x + 5
B. xy – x – 5
C. 3xy + x – 5
D. 3xy + x + 5
E. 3xy + 1x – 5

3) Enter the value of n so the expression

(-y + 5.3) + (7.2y – 9) is equivalent to 6.2y + n.

$6.2y - 3.7$ $n = -3.7$

4) Enter the value of n so the expression

(-3y + 2.5) + (9.5y – 10) is equivalent to 6.5y + n.

$6.5y - 7.5$ $n = -7.5$