1.02 Algebraic Expression

Vocabulary

Variable: A letter that represents an unknown number.
(ex. a + 2 → **a** + 2)

Term: Expression are made up of terms separated by plus or minus signs.
(ex. 2x + 5 - 3x → **2x + 5 - 3x**)

Factors: Numbers that multiply together to produce a product.
(ex. 3x → **3x**)

Coefficient: When multiplying a number and a variable, the number listed is the coefficient. ***Remember, the coefficient of x is 1.***
(ex. x by itself stands for **1**x ; 5x → **5**x)

Constant: Numbers that stand alone.
(ex. 3x + 5 → 3x + **5**)

Exponent: Shorthand that tells how many times the base is used as a factor, or how many times the base is multiplied by itself.
(ex. 2 x 2 x 2 → 2^3)

Combining Like Terms: is the process of adding or subtracting like terms to simplify an expression.

LIVEWORKSHEETS

1.02 Algebraic Expressions

Watch for exponents and negatives!

$2x + 5y + 2z + 2y + z + 3x$

$2x + 5y + 2z + 2y + z + 3x$

$5x + 7y + 3z$

$4x2 + 4x + 3x2 + 8x + 5y2 + 10$

$4x^2 + 4x + 3x^2 + 8x + 5y^2 + 10$

$7x^2 + 12x + 5y^2 + 10$

$6x - 7x + 8y - 3y^2 + (-2y)$

$6x - 7x + 8y + 3y^2 + (-2y)$

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

Simplify the expressions.

1. $4x^2 + 5y + 3x + 2x^2 - 2y$

2. $4x^3 + x^2 - 2x^3 + 5$

3. $10x^5 + 3(2x^5 - 4b^2)$

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