ALGEBRA 1

Below are some foundational equations for Algebra 1, for your review.

$$(a + b)^1 = a + b$$

$$(a + b)^2 = a^2 + 2ab + b^2$$

$$(a + b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$$

$$(a^2 - b^2) = (a + b)(a - b)$$

Distributive Property

$$3(x + 5) = 3x + 15$$

$$a(x + y) = ax + by$$

Zero Exponents

$$4^0 = 1 \qquad 22^0 = 1 \qquad y^0 = 1$$

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ALGEBRA 1, CONTINUED.

Below are some foundational equations for Algebra 1, for your review.

Rule of Negative Exponents

$$x^{-2} = \frac{1}{x2} \qquad a^{-n} = \frac{1}{a^n}$$

Laws of Exponents

$$y^3 + y^4 = y^7 \qquad (a^3)^5 = a^{15}$$

$(2xy)^3 = 2^3 x^3 y^3$ $\downarrow$ $8x^3y^3$	$\left(\frac{2}{3}\right)^n = \frac{2^n}{3^n}$	$(-3) = (-3)\cdot(-3)\cdot(-3)$ $= 9\cdot(-3)$ $= -27$

4 Keys to Making Algebra Work!

1.) Focus on Relationships
2.) Think Situations, not word problems.
3.) Provide opportunities for productive failure, and think growth.
4.) Start early.
5.) Present difficult problems.

For clarification, please contact or stop by the Office of Tutoring & Learning Support Services on the 1st floor of Academic Support Building - B.

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