

9D Unit1 Survival Guide

Algebra

Name: _____

Vocabulary

$$-5x^2 + 3x^4 - 6$$

Term -number -variable -or product of both	Exponent/Powers -shows repeated multiplication	Variable -Letter, x, used for an unknown	Coefficients -number multiplied by a variable
Expression -numbers and variables connected by +, -, ×, ÷	Base -number or variable upon which a power is applied	Constant -number without a variable multiple	Degree -highest power of a term
Monomial -one term	Binomial -two terms	Trinomial -three terms	Polynomial -many terms

Exponent Laws

$$x^0$$

$$3^0 + 5^0$$

$$x^{-a}$$

$$3x^{-4}$$

$$x^a \times x^b$$

$$3^2(3^4)$$

$$\frac{x^a}{x^b}$$

$$\frac{5x^2}{3x^3}$$

$$(x^a)^b$$

$$(2x^2y^3)^3$$

Collect Like Terms

$$a^2 - 2a + 7a^2 + 9a + a - 4a^2$$

Distributive Property

Mult

$$2x(5x^2 - 2x + 7) - 3x(4x^2 - 2)$$

Divide

$$\frac{15a^4b^4 - 3a^4b^5 - 6a^3b^6}{3a^2b^3}$$

Simplify

$$2^4 \times 2^0 \div 2^3$$

$$2^3 + 2^{-2}$$

$$(6^2 - 5^2 - 7^0)^{-2}$$

$$\frac{4}{4^{-1} + 4^0}$$

$$[6x^2(-2x^5)]^2$$

$$\left(\frac{9a^2b^3}{3a^5b^{-2}}\right)^{-2}$$

$$(2x^4y^{-2}z^{-5})(3xy^3z^4)^3$$

Applications - Find Area & Perimeter

