U2D2 Unit 2: Polynomials (Chapter 3 in Textbook!)

Day 2: Exponent Laws (Part 2)

Simplifying Exponential Equations: Power of a Power

Expression	Expanded Form	Single Power
$(4^2)^3$		
$(5^3)^2$		
$(x^4)^2$		
$(y^3)^4$		

Generalized Rule: Power Rule

For a power to a power... _____

Working With Exponent Laws (using all three laws)

Simplify:

1. a) $(x^5)^2$ b) $(10b^2)^3$ c) $[(x^3)(x^2)]^3$ d) $-4ab^2 \div 2ab$

e) $\frac{(7mn^2)^2}{7mn}$ f) $(-6x^5y^4)^2$ g) $\left(\frac{x^5}{-3y^3}\right)^2$

Simplify first and then evaluate

1. $(3x^2y)^2$ for x = 2, y = 3 2. $\left(\frac{-3a^3}{5a^3}\right)^2$ for a = 3

Scientific Notation

3 100 000 written in scientific notation is:

Simplify:

$(3.1x10^9)(2.0x10^5)$