U2D1

Unit 2: Polynomials (Chapter 3 in Textbook!)

Day 2 - Exponent Laws Part I

A: Simplifying Exponential Expressions - Product Law

Complete the following table:

Product	Expanded Form	Single Power
a) $(3^2)(3^4)$		
b) $(5^3)(5^4)$		
c) $(7^2)(7^4)(7^3)$		
d) $(x^3)(x^4)$		
e) $(x^2)(x^7)(x)$		

PRODUCT RULE: When multiplying powers with the same base . . .

B: Simplifying Exponential Expressions - Quotient Law

Complete the following table:

Quotient	Expanded Form	Single Power
a) $(5^3) \div (5^2)$		
b) $(4^3) \div (4)$		
c) $(3^6) \div (3^4)$		
d) $(x^4) \div (x^2)$		
e) $(x^7) \div (x^3)$		

QUOTIENT RULE: When dividing powers with the same base . . .

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Examples: Simplify and evaluate the following:

a) 3×3^3

b) $2^2 \times 2^2 \times 2$

c) $y^2 y^3 y$ for (i) y = 2 (ii) y = -1

d) $4x^3x^2$ for x = 10

e) $3^5 \div 3^4$

f) $4^6 \div 4^3$

g) $3x^5 \div x^3$ for x = 4

h) $(3m^3n^2)(-m^4n^5)$

i) $\dfrac{-48a^3b^5}{-4ab^2}$

U2D1 HW: Page 126 #1-4 (#2 only evaluate b,c,d, #4 only evaluate b,c,d) NOTE: $a\frac{2}{5}b^3 = \frac{2}{5}ab^3$ Worksheet: "Why are Babies Like Hinges" (See web-page) EXTRA Practice: "Engineer Driving..."

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