

Warm-up:

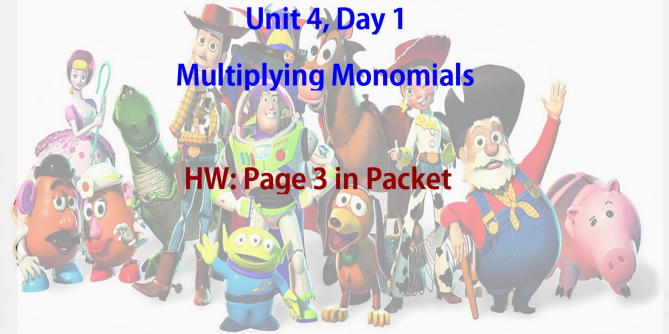
What Do You Know About Bases and Exponents



Algebra 1

Unit 4, Day 1
Multiplying Monomials

HW: Page 3 in Packet



Bases and Exponents

$164 = 2^6$
 $128 = 2^7$

2^5
 $2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 = 32$

$2^3 \cdot 2^4$
 $(2 \cdot 2 \cdot 2) \cdot (2 \cdot 2 \cdot 2 \cdot 2)$
 $2^7 = 128$

Multiplying with Same Bases

To multiply exponents with the same bases, simply add the exponents.

$a^7 \cdot a^3$
 a^{10}

Multiplying with Same Bases

Simplify each expression.

$$(5x^7)(x^6)$$

$$5x^{13}$$

$$(4ab^6)(-7a^2b^2)$$

$$-28a^3b^8$$

YOU TRY!!

Simplify each expression.

$$(r^4)(-12r^7)$$

$$-12r^{11}$$

$$(6cd^5)(5c^5d^2)$$

$$30c^6d^7$$

Classwork

Complete page 2 in the packet. We will go over the answers at the end of class.

7) $(2a^2)(8a)$

$$16a^3$$
$$\frac{1}{3} \cdot \frac{12}{1} = \frac{12}{3} = 4$$

10) $\frac{2}{3}(2a^2b)(6b^3)$

$$4a^3b^4$$
$$\frac{5}{1} \cdot \frac{1}{5} = \frac{5}{5} = 1$$

13) $(5a^2bc^3)(\frac{2}{5}abc^4)$

$$1a^3b^2c^7$$

8) $(rs)(rs^3)(s^2)$

$$r^2s^6$$

11) $(-4x^3)(-5x^2)$

$$20x^5$$

14) $(-5xy)(4x^2)(y^4)$

$$-20x^3y^5$$

9) $(x^2y)(4xy^3)$

$$4x^3y^4$$

12) $(-3j^2k^4)(2jk^6)$

$$-6j^3k^{10}$$

15) $(10x^2yz^2)(-2xy^2z)$

$$-20x^3y^3z^3$$

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