

Warmup

1. Simplify: $5t - 8(-3t + 7)$

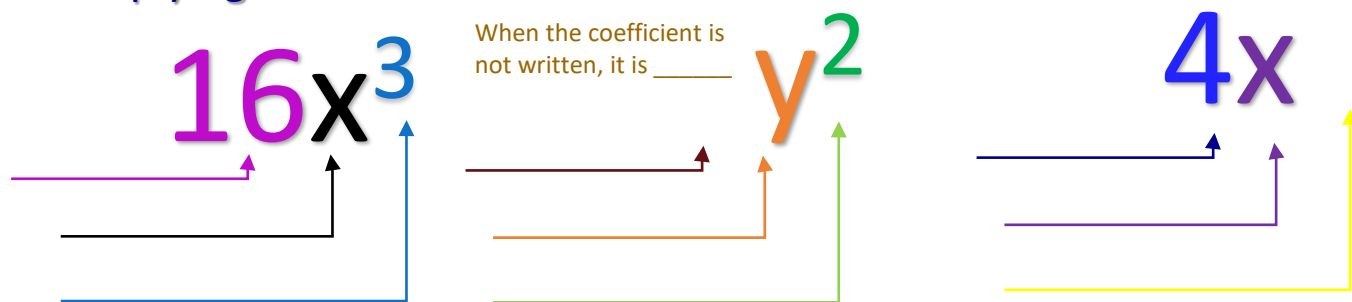
2. Write 3^5 as a product of the same factor.

3. Fill in the blank:

$4(3 + 2) = 4(3) + \underline{\hspace{2cm}}(2)$

What is the value of each side of the equation ?

I. Multiplying Monomials with a Coefficient of 1



To find the product of monomials with a coefficient of 1, keep the base and add the exponents.

$z^2 \cdot z^3$

$y^4 \cdot y^5$

$x^a \cdot x^b$
 Where a and b are whole numbers.

$6 \cdot 6^4$

4. $a^5 \cdot a^9$

5. $s^{10} \cdot s^3$

6.

7.

II. Multiplying a Whole Number by a Monomial

To find the product of a whole number and a monomial multiply the whole number by the **coefficient**, keep the base and exponent.

$$3(z^3)$$

$$(4)(2y^5)$$

$$a(bx^c)$$

Where a, b and c are whole numbers.

The coefficient of z^3 is _____

When a monomial does not have a coefficient written, it is assumed to be _____

because multiplying by _____ does not change the value.

$$6(6t^4)$$

$$8. \quad 3(8x^6)$$

$$9. \quad 10(b^6)$$

10.

III. Multiplying two Monomials

To find the product of monomials multiply the coefficients, keep the base and add the exponents.

$$(4x^2)(7x^4)$$

$$(11m^3)(7m)$$

$$ax^c(bx^d)$$

Where a, b, c, and d are whole numbers.

$$(6r^3)(6r^4)$$

11. $(4a^6)(8a^9)$

12. $9s^{10} \cdot 5s^3$

IV. Multiplying Monomials with Negative Coefficients

To find the product of monomials with integer coefficients, multiply the coefficients (follow the rules of signed numbers), keep the base and add the exponents.

$$(2v^3)(-6v^6)$$

$$(-6w^2)(-7w^4)$$

$$(-e^5)(7e^2)$$

13. $(9p^7)(-4p^3)$

14. $(-5v^6)(-3v)$

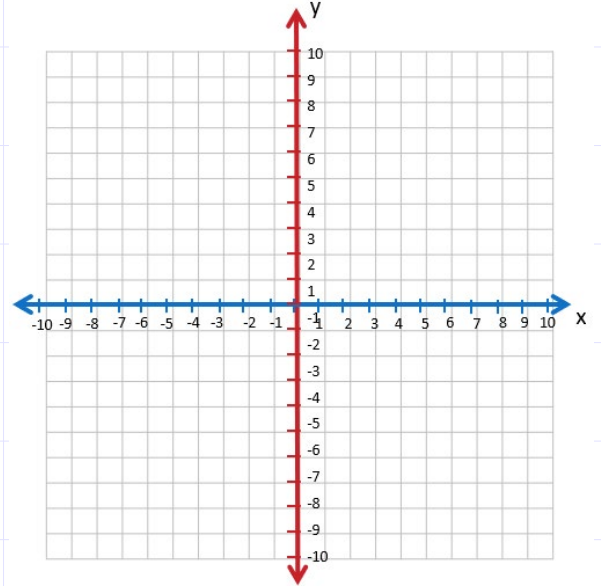
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III. Practice

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