

Day 1 - Review of Multiplying Powers - Practice

1. Directions: Simplify each expression.

$$a. x^2 \cdot x^3 = x^5$$

$$b. y^3 \cdot y^5 = y^8$$

$$c. n^4 \cdot n^5 = n^9$$

$$d. x^2 y^3 x^3 y^5 = x^5 y^8$$

$$e. a^2 b^3 \cdot ab^4 = a^3 b^7$$

$$f. 7y^3 z^4 \cdot 2yz^3 = 14y^4 z^7$$

$$g. 3mn^3 \cdot 8m^6 n^7 = 24m^7 n^{10}$$

$$h. 9b^2 \cdot 2a^5 \cdot a^2 b^6 = 18a^7 b^8$$

2. Direction: Simplify each expression.

$$a. (x^5)^2 = x^{10}$$

$$b. (n^4)^3 = n^{12}$$

$$c. -(m^2)^4 = -m^8$$

$$d. (3x^2 y)^4 = 81x^8 y^4$$

$$x^5 \cdot x^5$$

$$n^4 \cdot n^4 \cdot n^4$$

$$-(m^2 \cdot m^2 \cdot m^2 \cdot m^2)$$

$$3x^2 y \cdot 3x^2 y \cdot 3x^2 y \cdot 3x^2 y$$

$$e. (-5y^3 z^2)^3 = -125y^9 z^6$$

$$f. (-4mn^2)^2 = 16m^2 n^4$$

$$g. (2ab^3)^4 = 16a^4 b^{12}$$

$$h. (-2x^3 y^4)^2 = 4x^6 y^8$$

$$-5y^3 z^2 \cdot -5y^3 z^2 \cdot -5y^3 z^2$$

$$-4mn^2 \cdot -4mn^2$$

$$2ab^3 \cdot 2ab^3 \cdot 2ab^3 \cdot 2ab^3$$

$$-2x^3 y^4 \cdot -2x^3 y^4$$