

## Review Activity: Exponent Laws

“Parallel lines have so much in common...”

10	3	5		8		5	6	8	4	11		3	6	11	7	2	2		1	11	9	11	12		4	11	11	3	

Simplify the following expressions, and find the corresponding letter by matching your answer with the solutions below. Write the letter in the above box(es) corresponding with the question's number to complete the phrase. Write all your answers in simplest form with positive exponents.

1.

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

2.

$$\left(\frac{1}{3^3}\right)\left(\frac{3}{4}\right)^2$$

3.

$$x^5y^3 * x^3y^4$$

4.

$$\frac{3x^1y^3z^2 * 3y^2z}{16x^{-2}y}$$

5.

$$\left(\frac{x^4}{y^{-4}}\right)^2$$

6.

$$(-3x^3y^{-2}z)^{-4}$$

7.

$$(-2x)^3(-xy^2)^2$$

8.

$$\frac{(2x^3)(3y)^0}{5y^3}$$

9.

$$(2x^6y^2z^8)(0.5x^{-3}y^{-2}z)$$

10.

$$\frac{(5x^{-3}y^4)^2}{5x^{-4}}$$

11.

$$\frac{(-3x^{-2}y^3)(6x^4y^{-4})}{36xyz^{-3}}$$

12.

$$48x^6y^3 \div 12x^{-1}y$$

A: $\frac{2x^3}{5y^3}$	E: $\frac{-xz^3}{2y^2}$	H: $\frac{y^8}{81x^{12}z^4}$	I: $\frac{5y^8}{x^2}$
L: $\left(\frac{1}{48}\right)$	M: $\frac{9x^3y^4z^3}{16}$	N: $x^8y^{12}$	S: $x^8y^8$
T: $x^8y^7$	V: $x^3z^9$	Y: $-8x^5y^4$	R: $4x^7y^2$