

Everyone needs a white  
board, marker, and  
eraser!

Warm up- Simplify and leave in exponential form. Write all eight answers on your white board

$$1. 2^9 \cdot 2^{-4} = 2^5$$

$$5. 1^{10} \cdot 1^{1,000} = 1$$

$$2. \frac{4^5}{4^7} = \frac{1}{4^2}$$

$$6. \frac{3^6}{3^3} = 3^3$$

$$3. 7^3 \cdot 7^4 = 7^7$$

$$7. 4^3 \cdot 4 = 4^4$$

$$4. \frac{2^2}{2^1} = 2$$

$$8. \frac{9^7}{9^5} = 9^2$$

We are going to learn one new thing today!

What happens when we have a zero in the exponent???

$$\begin{array}{l} 3^0 = \{ \qquad \qquad \qquad 17^0 = \{ \\ \left(\frac{1}{2}\right)^0 = \{ \qquad 1,000,000,000,000,000^0 = \{ \end{array}$$

Anything to the zero power is 1!

## White Board Practice for Exponents

1.  $4a^5b^6 \cdot 2\cancel{a^5} =$

$$8a^5b^6$$

2.  $\frac{x^4y^3}{x^2y} =$

$$\frac{\cancel{xxxx}y\cancel{yy}}{\cancel{xx}y}$$

$$x^2y^2$$

3.  $\frac{r^{10}\cancel{s^5}}{r^5s^5} =$

$$\frac{r^5}{s^5}$$

4.  $\frac{10x^6}{6x^8} =$

$$\frac{5}{3x^2}$$

## White Board Practice for Exponents

$$5. 5y^{-5}z^3 \cdot 3z^2y^6 = 15yz^5$$

$$6. \frac{3xy^5}{5x^3y^0} = \frac{3y^5}{5x^2}$$

$$7. \frac{8m^3n^2}{4mn^7} = \frac{2m^2}{1n^5}$$

$$8. \frac{3x^0x^4}{6x^8} =$$

**WORK ON NEW  
WORKSHEET!!**

**#1-16**

**5 on front must be  
completed before you  
work with someone.**