Bell Work: (will be done in the notebooks)

- 1) Take a spiral notebook.
- 2) Put your name on it.
- 3) At the top of the 1st page, put today's date.
- 4) Complete the bellwork.

Find the value of each expression.

$$1)5^{2}=25$$
 2)  $3^{3}=27$  3)  $4^{2}=16$  4)  $6^{1}=6$ 

## Zero Exponents Property

- Anything to the zero power equals one

 $y^{\circ}$   $X^{\circ}$   $(xy)^{\circ}$ Always = 1

Negative Exponents -> Are not allowed

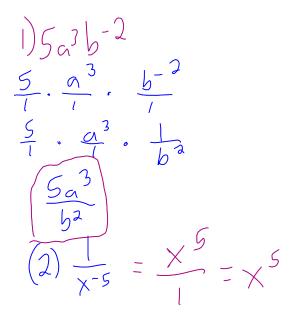
Steps to eliminate a negative exponent

- 1. Create a fraction
- 2. Move the term with the negative exponent into the numerator or denominator from where it is.

Simplify.

Example:  $5^{-2} = \frac{5^{-2}}{1} = \frac{1}{5^{2}} = \frac{1}{25}$ 

## Examples:



Steps to simplify exponential expressions.

- 1. Seperate the terms
- 2. get rid of the negative exponents
- 3. bring everything down
- 4. multiply.

$$\frac{N-5}{M^2}$$

$$\frac{N-5}{M^2}$$

$$\frac{1}{M^2}$$

$$\frac{1}{M^2}$$

$$\frac{1}{M^2}$$

$$\frac{1}{M^2}$$

(4) 
$$3s^3t^{-2}$$
 when  $s=2, t=-3$ 

$$\frac{3}{1} \cdot \frac{5}{1} \cdot \frac{1}{t^2} = \frac{3}{1} \cdot \frac{3}{1} \cdot \frac{3}{1} \cdot \frac{1}{t^2} = \frac{3}{1} \cdot \frac{3}{1$$