

## REVIEW: Exponents

### Exponents



*The exponent is attached to whatever it is right next to.  
(Be mindful of PARENTHESES!)*

Exponential Form:

$$X^5 = x \ x \ x \ x \ x$$

### **BEWARE OF THE PARENTHESES!!!**

**REMEMBER:** the exponent is ATTACHED to whatever it is right next to.

$$-(2)^4 \longrightarrow -(2 \ 2 \ 2 \ 2)$$

$$(-2)^4 \longrightarrow (-2)(-2)(-2)(-2)$$

**Any number with an EXPONENT OF ZERO always EQUALS 1**

**Multiplying with exponents:**

**KEEP THE BASE.....ADD the EXPONENTS**

**Dividing with exponents:**

**KEEP THE BASE.....SUBTRACT the EXPONENTS**

**REMEMBER.....**

A NEGATIVE EXPONENT should be written as a FRACTION!

$$5^{-2} = \frac{1}{5^2}$$

### **Multiplying with Variables and Exponents**

**If variables are the SAME:**

- Multiply the COEFFICIENTS
- KEEP the VARIABLE and ADD the EXPONENTS

**If variables are DIFFERENT:**

- Multiply the COEFFICIENTS
- WRITE the VARIABLES next to each other in ALPHABETICAL order

