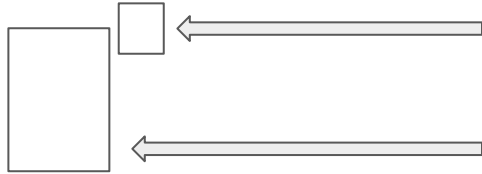


# EXPONENTS

- Raised to a power of...
- Base and Exponent



The \_\_\_\_\_ tells how many times the \_\_\_\_\_ is \_\_\_\_\_ times itself.

Power of 0 - \_\_\_\_\_ (A zero exponent means *a number divided by itself.*)

Power of 1 - \_\_\_\_\_

Power of 2 - \_\_\_\_\_ (measuring area - “square inches”)

Power of 3 - \_\_\_\_\_ (measuring volume - “cubic feet”)

Negative Power - \_\_\_\_\_ (“invert” the power)

Symbol ^ - \_\_\_\_\_

# Practice

1.  $3^2=$

2.  $5^0=$

3.  $12^1=$

4.  $n^0=$

5.  $2^4=$

6.  $3^3=$

7.  $5^{-2}=$

8.  $4^{-3}=$

9.  $3^2+5^3=$

10.  $3^4-3^2=$

**Official GED Calculator: TI-30XS**



Note: When you see an exponent on the outside of parentheses, it means that everything inside needs to be raised to that power. *(multiply the inside power by the outside power)*

Examples:

$$(mn)^2 = m^2n^2$$

$$(3x)^2 = 9x^2$$

$$(5x^2)^3 = 125x^6$$

$$\left(\frac{3}{4}\right)^2 = \frac{3^2}{4^2} = \frac{9}{16}$$

Practice Problems:

1.  $(xy)^3$

2.  $(a^2b^3)^2$

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

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

5.  $(3^2m^3)^2$

# Do we square the negative?

There is a difference between  $-3^2$  and  $(-3)^2$