

Exponents

Short way of writing an expression when the same factors are used.

Vocabulary:

Factor: Any of the numbers multiplied to form a product.

Exponent: An exponent is a number that tells how many times the base is used as a factor.

Base: The base of an exponent is a number that is raised to a power.

→ Exponents show repeated multiplication.

→ Exponents represent how many times a number (BASE) is multiplied by itself.

Power: 5^3 (Exponent)
(Base)

$$5 \cdot 5 \cdot 5 = 125$$

1 time 2 times 3 times
 $25 \cdot 5 = 125$

Exponential Form 2^4	Word Form Two exponent four
Expanded (Factor) Form $2 \cdot 2 \cdot 2 \cdot 2$	Standard Form 16

Any number raised to the first power is itself

Example: $100^1 = 100$

Any number raised to the zero power is always 1.

Example: $100^0 = 1$

Read as:

4^2 squared

5^3 cubed