EXPONENTIAL AND SCIENTIFIC NOTATION

Let's Explore

Exponential notation is a shortened way of expressing a LARGE number using exponents.

Actual number: **1,000,000**

Exponential Notation: **10^6**

The 10 in **10^6** is called the base.

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10^6 = 10 x 10 x 10 x 10 x 10 x 10 (ten to the power of 6)

10^6 = 1,000,000

The exponential notation of 1,000,000 is 10^6.

How to write a number in exponential notation:

Example 1:

Take the number **10,000,000** for example:

1. Put a decimal point to the right of the **1**.

   1.0000000

2 Next, count the number of zeroes to the right of the decimal point.

   1.0 0 0 0 0 0 0 has **7 zeroes**.

3. The number of zeroes you count is the ***exponent***.

   10,000,000 = 10^7

4. So: [illegible].

Example [illegible]

What if the[illegible]

1. Put a[illegible]

   6.0000

2 Next, count the number of zeroes to the right of the decimal point.

   6.0 0 0 0 has **4 zeroes**.

3. The number of zeroes you count is the *exponent*.

   60,000 = 6 x 10^4

4. So: **60,000** written in exponential notation is **6 x 10^4.**

   10^4 = 10,000 SO…

   6 x 10^4 → 6 x 10,000 → 6 x 10,000 = 60,000