

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



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PREVIEW

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$10^6 = 1,000,000$

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:

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

1.0000000

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

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

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

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

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

$$60,000 = 6 \times 10^4$$

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

$$10^4 = 10,000 \quad \text{SO...}$$

$$6 \times 10^4 \rightarrow 6 \times 10,000 \rightarrow 6 \times 10,000 = 60,000$$