

Exponentials

An exponential is a number written with an exponent

An exponent tells us how many times the base is used as a factor

$$10 \times 10 = 10^2$$

$$10 \times 10 \times 10 = 10^3$$

$$10 \times 10 \times 10 \times 10 = 10^4$$

$$10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 = 10^{10}$$

Exponentials are a convenient way of writing large numbers

$$10 = 10^1$$

$$100 = 10^2$$

$$1000 = 10^3$$

$$10,000 = 10^4$$

$$100,000 = 10^5$$

$$1,000,000 = 10^6$$

Do you see any pattern?

When working with a powers of 10, the exponent is equal to the number of zeroes