$$10=10^{1}$$

$$100=10^2$$

$$1000=10^3$$

$$10000=10^4$$

How many zeros are there in

10^6 ?

Because

the base of these powers

is number 10

they are called

powers of 10

are

powers of 10

important?

scientists use them

to express

big and small numbers

Example

Radius of the Earth

6400 km

This is $6.4 \cdot 10^3$ km

Or $6.4 \cdot 10^6$ m

Are these numbers equivalent?

6400 km

$6.4 \cdot 10^3$ km

$6.4 \cdot 10^6$ m

Why?