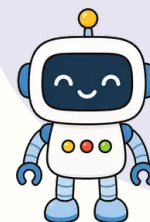


Scientific notation



3,000,000

← point moves left 6 places

$$= 3 \times 10^6$$

0.0004

point moves right 4 places →

$$= 4 \times 10^{-4}$$

Powers of ten

10^6	1,000,000
10^3	1,000
10^1	10
10^0	1
10^{-1}	0.1
10^{-3}	0.001

Big number

$$3,000,000 = 3 \times 10^6$$

count the places left: power
is +6

Small number

$$0.0004 = 4 \times 10^{-4}$$

count the places right:
power is -4

First part is 1 to 10

$$3.5 \times 10^4 \text{ is right}$$

35×10^3 is not: one digit
before the point

Scientific notation writes any number as (1 to 10) $\times$ a power of ten. The power is how many places the decimal point moves — left for big numbers, right for small.