

POWERS OF TEN

I can explain patterns in the number of zeros in a product when multiplying a number by a power of 10.

I can use whole number exponents to stand for powers of 10.

EXPONENT

The number that tells the number of times the base number is multiplied by itself.



POWERS OF TEN

using a base number of 10 with an exponent.

Powers of 10	Equal factors	Easy way to calculate	Product (answer)
10^1	10	1 with no 0	10
10^2	10×10	1 with 2 zeros	100
10^3	$10 \times 10 \times 10$	1 with 3 zeros	1000
10^4	$10 \times 10 \times 10 \times 10$	1 with 4 zeros	10.000

Write the equal factors and the product	Find the product (look for the pattern)
10^5 _____ _____	$23 \times 10 =$ _____ $23 \times 100 =$ _____ $23 \times 1000 =$ _____
10^7 _____ _____	$56 \times$ _____ $= 5600$ _____ $\times 10 = 150$ $45 \times$ _____ $= 45000$