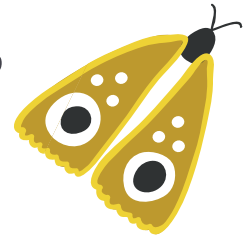


Multiplying and Dividing Numbers in Scientific Notation



You can multiply and divide numbers in scientific notation. Look at the examples below!

Multiply: $(2.5 \times 10^4)(6 \times 10^3)$	Divide: $\frac{4.2 \times 10^6}{8 \times 10^2}$
$(2.5 \times 6)(10^4 \times 10^3)$ Group the first factors and the powers of 10.	$\frac{4.2}{8} \times \frac{10^6}{10^2}$ Group the first factors and the powers of 10.
$15 \times (10^4 \times 10^3)$ Multiply the first factors.	$0.525 \times \frac{10^6}{10^2}$ Divide the first factors.
15×10^7 Multiply the powers of 10 by adding the exponents.	0.525×10^4 Divide the powers of 10 by subtracting the exponents.
1.5×10^8 If needed, rewrite your answer in scientific notation.	5.25×10^3 If needed, rewrite your answer in scientific notation.

Multiply or divide. Write each answer in scientific notation.

$$(1.2 \times 10^5)(4.3 \times 10^2) = \underline{5.16 \times 10^7}$$

$$(3.4 \times 10^5)(2.8 \times 10^3) = \underline{9.52 \times 10^8}$$

$$\frac{6.8 \times 10^8}{1.6 \times 10^3} = \underline{4.25 \times 10^5}$$

$$(3.6 \times 10^{-2})(8 \times 10^{-3}) = \underline{2.88 \times 10^{-4}}$$

$$\frac{9.3 \times 10^5}{2 \times 10^3} = \underline{4.65 \times 10^2}$$

$$(7 \times 10^4)(3.25 \times 10^4) = \underline{2.275 \times 10^9}$$

$$\frac{9 \times 10^{-3}}{1.5 \times 10^6} = \underline{6 \times 10^{-9}}$$

$$\frac{2.2 \times 10^8}{8 \times 10^{-2}} = \underline{2.75 \times 10^9}$$

