



# Scientific Notation

Simplify and express in scientific notation:

## Example 1

$$\begin{aligned}(6 \times 10^3) (2 \times 10^5) \\ (6 \times 10^3) (2 \times 10^5) &= 12 \times 10^3 \times 10^5 \\ &= 12 \times 10^8 \\ &= \mathbf{1.2 \times 10^9}\end{aligned}$$

## Example 2

$$\begin{aligned}\frac{18 \times 10^6}{4 \times 10^4} &= \frac{18}{4} \times 10^6 \times 10^{-4} \\ &= \mathbf{4.5 \times 10^2}\end{aligned}$$

Simplify each problem and express the answer in scientific notation.

1)  $(7 \times 10^8) (9 \times 10^6)$

2)  $\frac{3 \times 10^4}{8 \times 10}$

Answer: \_\_\_\_\_ X 10 \_\_\_\_\_

Answer: \_\_\_\_\_ X 10 \_\_\_\_\_

3)  $\frac{4 \times 10^9}{5 \times 10^7}$

4)  $(2 \times 10^3) (3 \times 10^4)$

Answer: \_\_\_\_\_ X 10 \_\_\_\_\_

Answer: \_\_\_\_\_ X 10 \_\_\_\_\_

5)  $(3 \times 10^7) (9 \times 10^6)$

6)  $\frac{4 \times 10^5}{16 \times 10^2}$

Answer: \_\_\_\_\_ X 10 \_\_\_\_\_

Answer: \_\_\_\_\_ X 10 \_\_\_\_\_

7)  $\frac{9 \times 10^5}{10 \times 10^3}$

8)  $(11 \times 10^4) (7 \times 10^2)$

Answer: \_\_\_\_\_ X 10 \_\_\_\_\_

Answer: \_\_\_\_\_ X 10 \_\_\_\_\_