

## Using Scientific Notation

### Essential Question:

How do you write a number in scientific notation?

Scientific Notation: a number is written in scientific notation when it is of the form  $c \times 10^n$  where  $c$  is a number between 1 and 10 and the exponent  $n$ , is an integer.

<u>Number</u>	<u>Standard form</u>	<u>Scientific Notation</u>
Two Million	2,000,000	$2 \times 10^6$
Five Thousandths	0.005	$5 \times 10^{-3}$

Write the following numbers in scientific notation

1. 42,590,000 \_\_\_\_\_

3. 3,890,000,000 \_\_\_\_\_

2. 0.0000574 \_\_\_\_\_

4. 0.0000987 \_\_\_\_\_

Write the following numbers in standard form

5.  $2.0075 \times 10^6$  \_\_\_\_\_

7.  $7.098 \times 10^8$  \_\_\_\_\_

6.  $1.6485 \times 10^{-4}$  \_\_\_\_\_

8.  $3.091 \times 10^{-5}$  \_\_\_\_\_

Computing numbers in scientific notation

Evaluate the expression

9.  $(4.4 \times 10^3)(1.5 \times 10^{-7})$  \_\_\_\_\_

12.  $(4.4 \times 10^3)(1.5 \times 10^{-7})$  \_\_\_\_\_

10.  $\frac{9 \times 10^7}{3 \times 10^4}$  \_\_\_\_\_

13.  $\frac{16 \times 10^5}{2 \times 10^{-2}}$  \_\_\_\_\_

11.  $\frac{(8 \times 10^7)(5 \times 10^{-2})}{2 \times 10^4}$  \_\_\_\_\_