

Skills You'll Need

The second factor in scientific notation is a power of _____. **10**

Write each number in scientific notation.

20,000

$$2 \times 10^4$$

0.000005

$$5 \times 10^{-6}$$

9,300,000

$$9.3 \times 10^6$$

8th Grade

Lesson 6-3: Multiplying with Scientific Notation

Learning Goals:

- I can multiply numbers written in scientific notation.
- I can choose appropriate units of measure.

What I Know:

What I Learned:

Multiplying with Scientific Notation

$$\begin{aligned}
 &(5 \times 10^6)(9 \times 10^3) \\
 &5 \cdot 9 \cdot 10^6 \cdot 10^3 \\
 &45 \times 10^9 \quad \leftarrow \text{not scientific notation} \\
 &\quad \swarrow \quad \searrow \\
 &4.5 \times 10^1 \times 10^9 \\
 &\boxed{4.5 \times 10^{10}}
 \end{aligned}$$

Quick Check

Multiply. Write each product in scientific notation.

$$(3 \times 10^5)(2 \times 10^8)$$

$$6 \times 10^{13}$$

$$(2 \times 10^6)(4 \times 10^3)$$

$$8 \times 10^9$$

$$12 (8 \times 10^{20})$$

$$12 \cdot 8 \cdot 10^{20}$$

$$96 \times 10^{20}$$

$$9.6 \times 10^1 \times 10^{20}$$

$$9.6 \times 10^{21}$$



Assignment

8th Grade Lesson 6-3a

Pg. 190 #7-12 all