

Algebra 1 7.4

*8th grade standard

Express numbers in scientific notation*

Find products and quotients of numbers in scientific notation
scientific notation

exponent

standard form

3,000,000,000

8.54,

activity: triangle puzzles
whiteboards

$$3 \cdot 10^{\textcircled{9}}$$

$$3 \cdot 10^9$$
$$3 \times 10^9$$

0.0000000854

$$8.54 \times 10^{-8}$$

Express each number in scientific notation

Guided Practice

1A. 68,700,000,000

$$6.87 \times 10^{10}$$
$$6.87 \times 10^{10}$$

1B. 0.0000725

$$7.25 \times 10^{-5}$$

Express each number in standard form

2A. 3.201 × (10⁶)

3,201,000

2B. 9.03 × (10⁻⁵)

0.0000903
0.0000903

Evaluate each quotient. Express the results in both scientific notation and standard form.

4A. $\frac{2.3958 \times 10^3}{1.98 \times 10^8}$ ³⁻⁸

1.21×10^{-5}

0000121
 .0000121

4B. $\frac{1.305 \times 10^3}{1.45 \times 10^{-4}}$ ⁻⁻⁻⁴

9 $\times 10^7$ ⁺¹

9 $\times 10^6$
 ↓
 90000000

Triangle puzzles

$$(4.34 \times 10^4)(6 \times 10^6)$$

.8 .

$$\frac{1.76 \times 10^{-11} \quad 10^5}{2.2 \times 10^{-5} \quad 10^{11}}$$
$$0.8 \times 10^{-6} \quad \text{+1} \quad \text{-1}$$
$$8 \times 10^{-7}$$

$$28.8 \times 10^{+1}$$
$$\underline{26.04 \times 10^{+1}}$$
$$2.604 \times 10^{11}$$

