Answer Key · Lesson 6.3: Scientific Notation

School Launch · Pre-Algebra · Unit 6 · Worksheet A · for the parent

Key

1. 5.2×10^{8}

Write $520{,}000{,}000$ in scientific notation.

2. 2.5×10^{8}

Write $250{,}000{,}000$ in scientific notation.

3. 7.5×10^{8}

Write $750{,}000{,}000$ in scientific notation.

4. $\approx 7.25 \times 10^{0}$

1. $2.9 \times 2.5 = 7.25$; exponents $5 + (-5) = 0$
2. Normalize: $7.25 \times 10^{0} \to 7.25 \times 10^{0}$

Compute and write in scientific notation (round to 3 significant digits): $(2.9 \times 10^{5}) \times (2.5 \times 10^{-5})$.

5. $\approx 1.55 \times 10^{8}$

1. $4.7 \times 3.3 = 15.51$; exponents $6 + 1 = 7$
2. Normalize: $15.51 \times 10^{7} \to 1.55 \times 10^{8}$

Compute and write in scientific notation (round to 3 significant digits): $(4.7 \times 10^{6}) \times (3.3 \times 10^{1})$.

6. $\approx 3.61 \times 10^{7}$

1. $1.9 \times 1.9 = 3.61$; exponents $6 + 1 = 7$
2. Normalize: $3.61 \times 10^{7} \to 3.61 \times 10^{7}$

Compute and write in scientific notation (round to 3 significant digits): $(1.9 \times 10^{6}) \times (1.9 \times 10^{1})$.

7. $\approx 1.12 \times 10^{-2}$

1. $3.4 \times 3.3 = 11.22$; exponents $2 + (-5) = -3$
2. Normalize: $11.22 \times 10^{-3} \to 1.12 \times 10^{-2}$

Compute and write in scientific notation (round to 3 significant digits): $(3.4 \times 10^{2}) \times (3.3 \times 10^{-5})$.

8. $\approx 5.58 \times 10^{6}$

1. $2.4 \div 4.3 = 0.5581$; exponents $7 = 7$
2. Normalize: $0.5581 \times 10^{7} \to 5.58 \times 10^{6}$

Compute and write in scientific notation (round to 3 significant digits): $(2.4 \times 10^{7}) \div (4.3 \times 10^{0})$.

9. $\approx 8.44 \times 10^{3}$

1. $3.8 \div 4.5 = 0.8444$; exponents $4 = 4$
2. Normalize: $0.8444 \times 10^{4} \to 8.44 \times 10^{3}$

Compute and write in scientific notation (round to 3 significant digits): $(3.8 \times 10^{4}) \div (4.5 \times 10^{0})$.

10. $\approx 2.95 \times 10^{12}$

1. $1.3 \div 4.4 = 0.2955$; exponents $8 - (-5) = 13$
2. Normalize: $0.2955 \times 10^{13} \to 2.95 \times 10^{12}$

Compute and write in scientific notation (round to 3 significant digits): $(1.3 \times 10^{8}) \div (4.4 \times 10^{-5})$.