

Skill Builder: Scientific Notation

Name: _____

Instructions: Give all answers in scientific notation $a \times 10^n$ with $1 \leq |a| < 10$.**Question 1: Ordinary $\rightarrow$ Scientific Notation** : Convert to $a \times 10^n$:

- a. 0.00047
- b. 85000000
- c. 0.0062
- d. 9300
- e. 0.00000039

Question 2: Scientific $\rightarrow$ Ordinary : Write out in ordinary form:

- a. 3.5×10^4
- b. 7.72×10^{-3}
- c. 8.901×10^2
- d. 9.48×10^{-6}
- e. 10.115×10^5

Question 3: Multiplication : Multiply and give your answer in scientific notation:

- a. $(2.5 \times 10^3) \times (4 \times 10^5)$
- b. $(6.2 \times 10^{-2}) \times (3 \times 10^4)$
- c. $(9 \times 10^1) \times (1.2 \times 10^2)$
- d. $(5.5 \times 10^6) \times (2 \times 10^{-3})$
- e. $(7.8 \times 10^{-4}) \times (4.5 \times 10^{-2})$

Question 4: Division : Divide and give your answer in scientific notation:

- a. $(8 \times 10^7) \div (2 \times 10^3)$
- b. $(4.5 \times 10^{-2}) \div (1.5 \times 10^{-4})$
- c. $(7.2 \times 10^5) \div (3.6 \times 10^2)$
- d. $(9 \times 10^{-6}) \div (3 \times 10^{-3})$
- e. $(5.4 \times 10^3) \div (6 \times 10^1)$

Question 5: Addition/Subtraction First align powers of ten, then compute:

- a. $(3.2 \times 10^4) + (5.5 \times 10^3)$
 - b. $(6.4 \times 10^{-2}) - (2.1 \times 10^{-3})$
 - c. $(1.2 \times 10^5) + (3.4 \times 10^5)$
 - d. $(7.5 \times 10^{-4}) - (4.2 \times 10^{-4})$
 - e. $(9.0 \times 10^2) + (1.1 \times 10^3)$
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