

# Scientific Notation - Free Practice Worksheet

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Instructions:** Convert each number to or from scientific notation, then simplify. Show your working. Check your answers with the key on the back.

1. Write 5,000 in scientific notation.

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2. Write 72,000 in scientific notation.

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3. Write 0.006 in scientific notation.

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4. Write 0.000047 in scientific notation.

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5. Convert  $3.9 \times 10^5$  to standard form.

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6. Convert  $1.08 \times 10^{-4}$  to standard form.

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7. Multiply:  $(2 \times 10^3) \times (3 \times 10^4)$ . Give your answer in scientific notation.

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8. Divide:  $(8 \times 10^6) / (4 \times 10^2)$ . Give your answer in scientific notation.

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9. Add:  $(3.0 \times 10^4) + (2.0 \times 10^3)$ . Give your answer in scientific notation.

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10. Multiply:  $(5.0 \times 10^{-3}) \times (4.0 \times 10^{-2})$ . Give your answer in scientific notation.

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11. The mass of an electron is approximately 0.0000000000000000000000000091093837 kg. Write this in scientific notation (use  $9.1 \times 10^n$ ).

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12. A star is 4.22 light-years away. One light-year is about  $9.461 \times 10^{15}$  m. Write the distance to the star in scientific notation (round coefficient to 2 decimal places).

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## Answer Key

1.  $5 \times 10^3$

2.  $7.2 \times 10^4$

3.  $6 \times 10^{-3}$

4.  $4.7 \times 10^{-5}$

5. 390,000

6. 0.000108

**7.**  $6 \times 10^7$

**8.**  $2 \times 10^4$

**9.**  $3.2 \times 10^4$

**10.**  $2.0 \times 10^{-4}$

**11.**  $9.1 \times 10^{-31}$

**12.**  $3.99 \times 10^{16} \text{ m}$