# **📄 Scientific Notation – Beginner Worksheet**

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

## **🔢 Part A: Convert to Scientific Notation**

Write each number in scientific notation.

1. 3,000 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. 45,000 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. 0.0008 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. 0.00000051 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. 7,200,000 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. 602,000,000,000,000,000,000,000 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## **🔁 Part B: Convert to Standard Notation**

Write each number in standard (regular) form.

1. 1.2 × 10³ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. 5.7 × 10⁴ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. 3.6 × 10⁻² = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. 9.1 × 10⁻⁵ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. 7.89 × 10⁶ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. 4.2 × 10⁻³ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## **🌍 Part C: Match Scientific Notation with a Real-World Quantity**

Write the correct letter (A–D) next to each item.

| **Scientific Notation** | **Description** |
| --- | --- |
| A. 1.0 × 10⁻⁹ | Size of a nanometer |
| B. 1.5 × 10⁸ | Distance from Earth to the Sun (miles) |
| C. 6.4 × 10³ | Distance across the U.S. (km) |
| D. 3.2 × 10⁷ | Population of Canada |

1. \_\_\_\_\_\_\_ Population of Canada (~38 million)
2. \_\_\_\_\_\_\_ Size of a nanometer
3. \_\_\_\_\_\_\_ Distance across the U.S.
4. \_\_\_\_\_\_\_ Distance from Earth to the Sun

## **✅ Answer Key (For Instructors)**

**Part A:**

1. 3.0 × 10³
2. 4.5 × 10⁴
3. 8.0 × 10⁻⁴
4. 5.1 × 10⁻⁷
5. 7.2 × 10⁶
6. 6.02 × 10²³

**Part B:** 7. 1,200
 8. 57,000
 9. 0.036
 10. 0.000091
 11. 7,890,000
 12. 0.0042

**Part C:** 13. D
 14. A
 15. C
 16. B