

### **Worksheet – Scientific Notation**

**Questions:** For the following examples, please write the value in scientific notation with the same number of significant figures as shown in the decimal form.

- | <b><u>Decimal Form:</u></b> | <b><u>Scientific Notation:</u></b> |
|-----------------------------|------------------------------------|
| 1. 569 002 567 000          |                                    |
| 2. 97 020                   |                                    |
| 3. 0.000 000 749            |                                    |
| 4. 0.001 004 0              |                                    |
| 5. 7 211 149 000            |                                    |
| 6. 0.005                    |                                    |
| 7. 0.00500                  |                                    |

For the following examples given in scientific notation, please write the value in decimal form

- | <b><u>Scientific Notation:</u></b> | <b><u>Decimal Form:</u></b> |
|------------------------------------|-----------------------------|
| 8. $3.45 \times 10^6$              |                             |
| 9. $2.1 \times 10^{-8}$            |                             |
| 10. $8.7911 \times 10^{14}$        |                             |
| 11. $1.400 \times 10^{-3}$         |                             |
| 12. $2.150 \times 10^0$            |                             |

**Questions:** Write the following values in scientific notation using four significant figures.

- | <b><u>Decimal Form:</u></b> | <b><u>Scientific Notation:</u></b> |
|-----------------------------|------------------------------------|
| 13. 87 991 201 045          |                                    |
| 14. 0.010 069 000           |                                    |
| 15. 17 000 000              |                                    |
| 16. 0.002                   |                                    |
| 17. 589 999                 |                                    |

**Answers:**

1.  $5.69002567 \times 10^{11}$

2.  $9.702 \times 10^4$

3.  $7.49 \times 10^{-7}$

4.  $1.004 \times 10^{-3}$

5.  $7.211149 \times 10^9$

6.  $5 \times 10^{-3}$

7.  $5.00 \times 10^{-3}$

8. 3 450 000

9. 0.000 000 021

10. 879 110 000 000 000

11. 0.001400

12. 2.150

13.  $8.799 \times 10^{10}$

14.  $1.007 \times 10^{-2}$

15.  $1.700 \times 10^7$

16.  $2.000 \times 10^{-3}$

17.  $5.900 \times 10^5$