

Name _____
Period ___ Date ___/___/___

1 • Introduction to Chemistry

SCIENTIFIC NOTATION

Part A: Express each of the following in standard form.

1. 5.2×10^3

4. 3.6×10^6

2. 9.65×10^{-4}

5. 6.452×10^2

3. 8.5×10^{-2}

6. 8.77×10^{-1}

Part B: Express each of the following in scientific notation.

7. 78,000

10. 1600

8. 0.00053

11. 0.0043

9. 602,000,000,000,000,000,000,000

12. 250

Part C: Show your work for #13-16. Use the "EE" or "EXP" button on your calculator to complete #17-20. Report your answers in scientific notation with the correct number of significant figures.

13. $(6.02 \times 10^{23})(8.65 \times 10^4)$

17. $\frac{(5.4 \times 10^4)(2.2 \times 10^7)}{4.5 \times 10^5}$

14. $3.02 \times 10^3 + 9.63 \times 10^4$

18. $6.2 \times 10^2 + 1.42 \times 10^3$

15. $\frac{5.6 \times 10^{-18}}{8.9 \times 10^8}$

19. $\frac{(6.02 \times 10^{23})(5.11 \times 10^{-27})}{8.23 \times 10^3}$

16. $2.5 \times 10^4 - 3.3 \times 10^3$

20. $4.55 \times 10^{10} - 9.4 \times 10^2$