

Name: _____

Hour: _____ Date: _____

Chemistry: *Scientific Notation*

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

1. 5.2×10^3

5. 3.6×10^1

2. 9.65×10^{-4}

6. 6.452×10^2

3. 8.5×10^{-2}

7. 8.77×10^{-1}

4. 2.71×10^4

8. 6.4×10^{-3}

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

1. 78,000

5. 16

2. 0.00053

6. 0.0043

3. 250

7. 0.875

4. 2,687

8. 0.012654

Part C: Use the exponent function on your calculator (EE or EXP) to compute the following.

1. $(6.02 \times 10^{23})(8.65 \times 10^4)$

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

2. $(6.02 \times 10^{23})(9.63 \times 10^{-2})$

9. $\frac{(6.02 \times 10^{23})(-1.42 \times 10^{-15})}{6.54 \times 10^{-6}}$

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

10. $\frac{(6.02 \times 10^{23})(-5.11 \times 10^{-27})}{-8.23 \times 10^5}$

4. $(-4.12 \times 10^{-4})(7.33 \times 10^{12})$

11. $\frac{(3.1 \times 10^{14})(4.4 \times 10^{-12})}{-6.6 \times 10^{-14}}$

5. $\frac{1.0 \times 10^{-14}}{4.2 \times 10^{-6}}$

12. $\frac{(8.2 \times 10^{-3})(-7.9 \times 10^7)}{7.3 \times 10^{-16}}$

6. $\frac{7.85 \times 10^{26}}{6.02 \times 10^{23}}$

13. $\frac{(-1.6 \times 10^5)(-2.4 \times 10^{15})}{8.9 \times 10^3}$

7. $(-3.2 \times 10^{-7})(-8.6 \times 10^{-9})$

14. $(7.0 \times 10^{28})(-3.2 \times 10^{-20})(-6.4 \times 10^{35})$