

Name: _____ Date: _____ Period: _____

AP Chemistry Chapter 1 Essentials – Part 2

Instructions: Please use complete sentences and be sure to show work for math type problems.

1. What system of measurement do chemists and other scientists use?
2. What SI units are used to measure the following: mass or weight? length? volume?
3. What is scientific notation and how is it used in science?
4. What are significant figures (digits) and why are they used in science?
5. List the 5 rules for significant figures listed on pgs 24-26 in your textbook.
6. Use the Unit Factor Method (Dimensional Analysis) to convert 1.47 miles into inches.
7. How do you determine the percent of an element in a substance/compound?
8. What is the difference between density and specific gravity?
9. What is the relationship between heat and temperature?
10. Why is the kelvin system used in science?
11. How can you convert between Celsius and Kelvin temperatures?
12. What is the SI unit of energy and how do we determine the specific heat of a substance?
13. What is the specific heat of liquid water?
14. When comparing 2 substances, what is the significance of one substance having a significantly higher specific heat than the other substance? For example, compare the specific heat of liquid water to solid aluminum metal.