

AP Chemistry Chapter 2 Essentials

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

1. What is an allotrope? Give an example.
2. Explain the difference between organic and inorganic compounds. Give examples of each.
3. Give an example of a structural formula, ball and stick model and a space filling model for the compound C_2H_6 .
4. How are cations and anions used to make an ionic compound? Give an example.
5. Salt exists as a crystal lattice of alternating sodium and chlorine ions. What exactly is a crystal lattice? What is a formula unit of salt?
6. What is a polyatomic ion? Given 3 examples of polyatomic ions.
7. What are the rules for writing formulas of ionic compounds? Be detailed. Give 2 examples.
8. What are the rules for naming ionic compounds? Be detailed. Give two examples.
9. What are AMU units used for?
10. Define and explain the significance of Avogadro's number, the Mole and how they relate to Molar Mass.
11. What is the difference between Formula Weight and Molecular Weight? Give an example of a substance that uses formula weight but not molecular weight.
12. How can you convert from grams of a substance into atoms, formula units or molecules? Give an example.
13. Explain how the percent composition of a substance is determined. Give an example.
14. Explain the difference between an empirical formula and a molecular formula. Give examples showing the difference,
15. What is the difference between a hydrate and an anhydrous compound? Give examples of each.
16. What is meant by the percent purity of a sample or compound and how can it be determined?