Chemistry: Ch.10: The Mole: Study Guide

1. Compare and contrast the empirical and molecular formula of a compound.
2. What is the molar mass of Gallium?
3. What is the molar mass of water?
4. What is the SI base unit used to measure the amount of a substance?
5. What is the numeral value of Avagadro’s number?
6. What is the correct formula for the compound whose percent composition is 47.51% O, 38.62% K, 13.87% N?
7. The name of a hydrate is calcium chloride dihydrate. What is its formula?
8. What is the mass in grams of 1.02 x 1024 atoms manganese (Mn)?
9. How many molecules are in 3.6 grams of NaCl?
10. How many grams are in 1.946 moles of NaCl?
11. How many moles of Ag contain 4.49 x 1023 atoms Ag?
12. How many grams of potassium permanganate are in 2.20 moles?
13. Determine the number of moles present in 32.5 g aluminum chloride.
14. How many moles are present in 21.2 g hydrochloric acid? HCl
15. What is the empirical formula of C6H12O6?
16. The empirical formula for a compound is CH2O, and the molar mass is 180.2 g/mol. What is the molecular formula for this compound?
17. What is the mass of 8 moles of sodium chloride?
18. What is the correct molar mass for the compound FeSO4?