

Chapter 3: Stoichiometry of Formulas and Equations

The mathematics and concepts in Chapter 3 are critical to understanding all the mathematical relationships and principles in chemistry. Take extra time to make sure you have a clear conceptual understanding of the different terms and units. A clear understanding of the steps involved is needed to think through complicated problems. Without this understanding, it will be impossible to determine if an answer is reasonable or not. It is crucial in your calculations to keep track of units and signs instead of working to just get a number, and having no idea what it represents. Dimensional analysis *with units* is crucial to success not only in class, but on the AP Exam as well. Mole calculations should be practiced until they are second nature. Other concepts emphasized and tested on the AP Exam include percent by mass, molar mass, empirical formulas, molecular formulas, writing reaction equations, stoichiometry, limiting reagents, percent yield, the basics of making a solution in molarity (M) and solution terminology.