Chemistry

Reference Notes – Formula Weight Determinations

Below are some simple reminders to help you determine formula weights. Determining formula weights is pretty easy, but an important tool in Chemistry.

1. When using the chart, you are allowed to round the atomic weights that are given on the chart. The limit of rounding is +/- .03 grams.
   1. Here are examples of what can be rounded:
      1. Oxygen to 16
      2. Hydrogen to 1
      3. Bismuth to 209
      4. Argon to 39.95 Notice that it can’t be rounded to 40.
   2. Here are some examples that can’t be rounded:
      1. Sulfur to 32
      2. Bromine to 80
      3. Boron to 11
      4. Magnesium to 24
2. Remember that the Coefficient is not a factor in determining formula weights.
   1. Examples:
      1. 2 NaCl has a formula weight of 58.45 g/n
      2. 5 H2O has a formula weight of 18 g/n
3. If you see a raised dot, treat it as an addition sign.
   1. Example:
      1. BaCl2 ● 2H­2O BaCl2 is 208.23 & 2 water molecules are 36 TOTAL = 244.23 g/n
4. A subscript after a ( ) counts for everything in the ( ).
   1. Example:

Cu(OH)2 The subscript 2 means that there are 2 Hydroxide Ions (OH-1) not just 2 hydrogens.