Unit 4 Test Review #3

1. Electrolytes
   1. Know the difference between nonelectrolytes, weak electrolytes and strong electrolytes

Strong Weak Nonelectrolyte

All ionic compounds weak acids all other compounds

Strong acids/bases weak bases

1. Precipitation Reactions – know your solubility rules so that you know which substances will form solids!
   1. See the blue notes I gave you or use the chart in your text, but you have to know them.
   2. Net Ionic Equations – this is what is left over once all the spectator ions (that don’t do anything) are removed.
2. Acid- Base reactions
   1. Know the 7 strong acids and the 8 strong bases (All are strong electrolytes by the way.) Every other acid or base is weak
   2. Neutralization Reactions – between an acid and a base, produces a salt and water
3. Oxidation Numbers – know how to assign them. They are similar to charges that we use for ionic compounds but we assign them to covalent molecules too.
   1. Use your blue notes or the text to know the rules for assigning oxidation #’s
4. Oxidation – Reduction Reactions
   1. Know the difference between oxidation and reduction. Can’t have one without the other!
   2. We didn’t really talk about it but look over the activity series in your blue notes. Any metals below it on the chart oxidize metals that are higher on the list.
5. Molarity – measure of concentration, it’s moles of solute per liter of solution. Know how to solve problems asking for molarity.
   1. It’s very similar to density, density is mass/volume and molarity is moles/volume.
   2. Dilution problems – you can use MBVB = MAVA  to determine…
      1. The volume of concentrated solution you need to create a specific volume of a specific dilute solution.
      2. The molarity of a new solution given the volume of the new solution and volume and concentration of the original solution. In other words, given 3 of the variables, you can easily find the 4th one.
6. Solution Stoichiometry – it’s just like regular stoichiometry but you use n = M× V to find the moles of substance A if needed or solve for moles of substance B and then use M = n/V to find the molarity.
   1. Titrations: You can use solution stoichiometry to solve these as well.

Problems to try

You can go here to practice: <http://www.sciencegeek.net/APchemistry/APtaters/chap04rev.htm>

<http://www.sciencegeek.net/APchemistry/APtaters/SolutionConcentration.htm>

<http://www.sciencegeek.net/APchemistry/APtaters/ReactionOccurance.htm>

There is a practice test too!