**Tool Kit for Solving Parallel Circuit Problems Handout**

These three formulas (plus Ohm’s Law) make up the “Tool Kit” for solving parallel circuit problems.

IT = I1 + I2 + I3

VS = VR1 = VR2 = VR3

+ 

Summary of the step-by-step, problem-solving process:

1. Write down what the problem is asking for.
2. Write the formula(s) needed to solve for the value(s) that will solve the problem from Step 1.
3. If the values needed for the formula are given, plug them into the equation and solve. If the values needed are not given, use one of the above “tools” to find a formula to give what is needed.
4. Repeat Step 3 as necessary until you are finally able to calculate a value that leads to a solution. This process results in a sequence of problems that need to be solved in order.
5. Once you are able to solve for a value, plug that value into the previously developed formula.
6. Work your way back through the steps of the process developed in Steps 3 and 4 writing down each formula and solution.
7. Highlight or circle the answer to the problem from Step 1.