Algorithm Worksheet

**Your Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Course and Section: \_\_\_\_\_\_\_\_\_\_**

**The purpose of this design worksheet is to help you organize your thoughts as you work out the solution to a particular programming problem. Filling out this worksheet is not busy work. Seasoned programmers know that it is much easier to write code once they have done the necessary design work. If you give your completed worksheet to someone else in the class, they should be able to write the program just from the information on this sheet.**

**What is the problem to be solved?** In the space below, try to write in your own words a brief statement of the problem that is to be solved in this project/lab.

**What do I know?** In this space, write down any facts that you know about this problem. Leave out extraneous information – stick to the facts that are required to solve the problem.

**What can I visualize about the problem?** In the space below sketch any pictures, diagrams, or charts that might help you visualize the problem to be solved. Label values, make note of relationships, and look for patterns. Then write down any new facts that you have uncovered. If you found any mathematical relationships try to write down equations or formulas that express these relationships.

**What do I need from the user?** In this space, write down any data that you need to collect from the user.

**What will my program produce?** In this space write down what it is that your program will produce. Note any special formatting that may be required when you output this data.

**Line-by-line description of what the program needs to do using Pseudocode:** Pseudocode is a list of English-like statements that precisely define the operations that your program will perform. In this space, write down line by line exactly what your program will do. Avoid using C# language. Include all of the details that are necessary if someone were to write the program using your pseudocode. **Test Values:** In the space below, write down at least three different possible sets of input values that you can use to test this program. Using a calculator, spreadsheet, or by hand compute the answers that you believe your program should produce. **Use these values to test your final program.**