Assignment #2
Problem Solving
Due: Friday, 10/17/14, 11:59pm

1. (40 pts) Let’s use a game to teach us the three steps. Go to http://robozzle.com. You have to play the tutorial to learn the game, i.e. understand the problem.
   • After the tutorial, go to the EasytoHard tab to see a list of games to play.
   • **Play 4 games of your choice:**
     o Write down the puzzle you are solving.
     o Write down the steps needed to solve each of these puzzles.
     o Run the games to make sure your solution works.
     o Are there many solutions to any of the puzzles you chose?

(40 pts) Complete the 3 of the 4 problem-solving steps to solve the following problem. Find the largest number out of 5 random cards pulled from a deck of cards. You probably want to sit down with a few friends for this and have them talk their process out loud as they solve the problem.

2. Follow the form outlined as follows:
   • **Step 1: Problem Analysis.**
     a. Comments about the problem to aid in understanding it.
     b. Description of the knowledge base (this list would include what you would be expected to know to follow the solution).
   • **Step 2: Program Design.** List the specific steps that would enable another person to find the largest among the 5 numbers presented. Remember, you have to be very explicit here to make sure one can actually accomplish the task using your directions.
     1.
     2.
     3.
     ....
   • **Step 4: Program Testing.**
     Create a Test Plan with several test cases including the average and extreme cases.

3. (20 pts) How does your solution change if the size of the list is 50, 500, or n, instead of 5?

4. Electronically submit your document *as a pdf* by the assignment due date, using TEACH: https://secure.engr.oregonstate.edu:8000/teach.php?type=want_auth