

CS 121 – Homework #4 – Lottery drawing simulation – due March 1, 2019

The purpose of this program is to practice with lists of numbers. In this program, you will simulate a lottery drawing. For the purpose of this assignment, the lottery that interests us is a game in which a player must select six different numbers in the range from 1 to 50, inclusive. A machine will randomly make a similar selection. The object of the game is to match as many numbers as selected by the machine.

The program should first ask the user to enter the 6 numbers on the user's lottery ticket. These six numbers may be entered in any order. But you may assume that all 6 numbers will be valid: they will all be in the range 1..50, and no number will repeat. Next, ask the user to enter the 6 winning numbers selected by the machine. Your program should then determine how many of the player's numbers match the winning numbers.

You should store the user's selected values in a list. And the winning numbers should be stored in another list. You may find it convenient to sort the lists.

Please note that the user will enter the 6 player numbers all on one line of input. And then the user will enter the 6 winning numbers on a second line of input. You may find it convenient to read each input as a string, and tokenize the string to get the 6 individual numbers, using the procedure described in the List handout given in class.

The output of your program should appear as in the following example I/O. Please print a blank line between the first and second prompt, and immediately before printing the outcome of the lottery drawing. If the user matched exactly 1 number, then your program should print the word "number" in the singular. Otherwise print "numbers" in the plural.

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Enter player's lottery numbers:  10 20 30 15 25 35
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Enter winning lottery numbers:  4 47 13 25 20 1
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You matched 2 numbers!
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