CS1428 Lab 3h

Name: Section:

Write your name at the top of this sheet. Turn in this sheet along with all requested printouts before the end of class. You may use my web materials, your note book or text book to answer these questions. (100 pts)

1. (15 pts) Write a program that functions as a basic exponentiation tool. You will prompt the user for a number and the power to raise it to and then output the result.
2. (25 pts) Convert the calculator program from previous lab using a switch statement. I have included the instructions from the previous program

You will need to make a program ***lab03h1.cpp*** that will function as a basic calculator. Declare the same constants done in question 3 in your program. Declare 4 integer variables **inst, data0, data1, data2** and a string variable **source**. You will prompt the user to input the value of **inst,** which will be the numerical interpretation of the operation you wish to perform, and then the values of **data1** and **data2**, which are the two numbers to perform the operation on. Use **if** statements to write out the calculator for **ALL** the options. The results of the calculations should be stored in **data0.** If there is an option that you cannot perform, merely output “Unable to perform operation, assigning data0 to -1” and assign **data0** to -1. Output a message to the user that their calculation is done and the result. **Upload your source to my homework upload folder and staple a hard copy of the lab to the back of this worksheet.**

1. (60 points) You will need to make a program ***lab03h2.cpp*** that will be a number guessing game. The following must be implemented in your program:

* You will prompt the user for the range they wish to be guessing from. (1-10). They will input the highest and lowest as separate integers.
* The game will begin and you will prompt the user for their guess.
* The user will guess and one of four things will happen:
  + They guessed correctly – output informing them they guessed correctly and the number of tries it took to get it right.
  + They guessed to low – output that they were incorrect and say they were too low.
  + They guessed to high – output that they were incorrect and say they were too high.
  + They guessed out of range – output that they have guessed out of range and inform them of the range.
* At the end of the game, prompt them to see if they wish to play again. If they do, start the game over again.

For this program I have supplied a starter file to handle the random number generation. You MUST use this file in order for your program to work.