CSCI 259/390
Homework 4 – Command Line Input

Time Due:
Due: Oct. 12, 10:00 PM

Work to Do:
For this homework, you are to do the following:

1. Create three C++ files named (use your actual last name):
   a. lastname_hw4.cpp
   b. lastname_hw4.h
   c. lastname_hw4_main.cpp

2. In "lastname_hw4_main.cpp":
   a. Fully test your code
   b. You should check each command line argument to determine if it is a number or not.

3. For "lastname_hw4.cpp" and "lastname_hw4.h" implement the following function prototype:
   a. Your function should return true if it is a number, false if not.
   b. All students must check for negative numbers. The negative sign '-' will always be the
      first element on the char array if it exists.
   c. CSCI 259 Students function prototype:
      bool check_for_int(char* array);
      i. Your function does not have to worry about floating point arguments such as 1.4,
         3.2, etc. You must return false because floating pointer numbers are not ints.
         Returning true on floating point numbers is incorrect.
   d. CSCI 390 Students function prototype (CSCI 259 can do for +10 points):
      bool check_for_double(char* array);
      i. When checking for a double, a decimal '.' may or may not exist.
      ii. There cannot be more than one decimal (See argument 16 in the example output on
          the next page).

4. The instructor will use his own main to test your code.

5. 10 points of the assignment will be for "pretty print." In other words, your output should be easy
    to read and understand.

6. 10 points of the assignment will be for "pretty code." In other words, your code you be formatted
    cleanly and with comments.

7. If you create any arrays, delete them when you are finished with them (I created none for this
    assignment).

Note:
• Remember to save, compile, and test often. It is much easier to write code if you compile and test it
  as you go instead of trying to write the whole thing at once.
• The function strlen() will be of use for this assignment. You must #include <string> to
  use it.

Submission:
1. Use WinSCP to copy your program from Turing to your machine
2. Send your code (all .cpp and .h files) as an attachment to chhumph1@olemiss.edu
3. Subject of email should be: Lastname – HW 4
Example Output (if both were implemented):

chh-mac:tempsolutions chumphries$ ./a.out 0 1 234 -1 -285 -329384
2.4 3.599 0.40001 .5 -3.255 -.4 Bob Time Sally 12.25.2010
.13. 34-45 Dom3Steve

arg 0: ./a.out is not a number
arg 1: 0 is a double, 0 is an int
arg 2: 1 is a double, 1 is an int
arg 3: 234 is a double, 234 is an int
arg 4: -1 is a double, -1 is an int
arg 5: -285 is a double, -285 is an int
arg 6: -329384 is a double, -329384 is an int
arg 7: 2.4 is a double
arg 8: 3.599 is a double
arg 9: 0.40001 is a double
arg 10: 0.5 is a double
arg 11: -3.255 is a double
arg 12: -0.4 is a double
arg 13: Bob is not a number
arg 14: Time is not a number
arg 15: Sally is not a number
arg 16: 12.25.2010 is not a number
arg 17: .13. is not a number
arg 18: 34-45 is not a number
arg 19: Dom3Steve is not a number