Introduction to Programming

Worksheet (20%)

1. Write a program in C++ that accepts two numbers from a user and swap the two numbers. (2pts)

   Input 1st number: 25
   Input 2nd number: 39
   After swapping the 1st number is: 39
   After swapping the 2nd number is: 25

2. Write a program in C++ that inputs a number from a user and outputs the reverse. (2pts)

   Input a number: 12345

   The reverse of the number is: 54321

3. Write a C++ program to add up all number between two given integers. (2pts)

   Enter first number: 39

   Enter second number: 42

   The sum of the numbers 39 and 42: 81

4. Write a program that accepts a character and an integer n, and prints out the next n characters. (3pts)

   Enter a character: B

   Enter a number: 3

   The next 3 characters are: C D E

5. Write a program that accepts n number of integers, stores them in an array and outputs the smallest and largest number. (2pts)

6. Write a program that prints out the following patters (6 pts)
   a)
   ```
         * * * * *
        * * * * *
       * * * * *
      * * * * *
     * * * * *
   ```
   b)
   ```
            *
          *   *
        *   *   *
      *   *   *   *
    *   *   *   *   *
   ```

7. Given the following lines of code answer the following questions. (3pts)

   int number= 20;
   int *pnumber=&number;

   a) Write 2 statements that can print out the value stored in the variable number.
   b) Write 2 statements out the address the variable number is stored at.
   c) Print out the address the pointer variable is stored at.