Lakehead University

Department of Computer Science

COMP-1411 – Computer Programming I

Fall 2021

Assignment 2 [20 Points]

Due: October 4th, 2021, at 11:55 PM

Note: Read the document of assignment expectations from the course account on D2L.

File (assignment) submission instructions:

- Submit two files using the link provided under 'Assignment' tab for the assignment 2 in the course account on D2L.
- The file name for the problem 1 will be shape.c
- The file name for the problem 2 will be findOdds.c
- 1. **[10 points]** Write a program in C that outputs a menu and reads a shape choice (circle, rectangle, or triangle). The program should then prompt for the appropriate dimensions and calculate the area of the shape chosen.

The output of your program **must** follow the format as shown in the test runs.

Test Run 1:

Shape Menu

- 1. Circle
- 2. Rectangle
- 3. Triangle

Shape (1, 2, or 3)? 1

Radius? 4.7

The area of the shape is 69.398 square units.

Test Run 2:

Shape Menu

- 1. Circle
- 2. Rectangle
- 3. Triangle

Shape (1, 2, or 3)? 2

Width? 2.3

Height? 4.5

The area of the shape is 10.350 square units.

Test Run 3:

Shape Menu

- 1. Circle
- 2. Rectangle
- 3. Triangle

Shape (1, 2, or 3)? 3

Base? 4

Height? 3.5

The area of the shape is 7.000 square units.

Test Run: 4

Shape Menu

- 1. Circle
- 2. Rectangle
- 3. Triangle

Shape (1, 2, or 3)? 4

4 is an invalid option.

Program terminated.

2. [Points 10] Write a C program to determine and print the odd numbers between two integer numbers provided by the user. You can assume that the second number will always be greater than the first one.

The output of your program **must** follow the format as shown in the test runs.

Test Run 1:

Enter the first number: 0

Enter the second number (> first number): 99

The odd numbers between 0 and 99 are:

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53

55 57 59 61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99

Test Run 2:

Enter the first number: 56

Enter the second number (> first number): 57

The odd numbers between 56 and 57 are:

57