CSE115L – Computing Concepts Lab

1. Write a program to read the ages of 15 persons and count the number of persons whose age is between 40 and 60 inclusive. Use **while** and **continue** statements.

2. In the following problem, an integer a is given as input. You have to find out the sum of the following expression-

$$a^2 - (a-1)^2 + (a-2)^2 - (a-3)^2 + (a-4)^2 - \ldots\ldots\ldots\ldots \pm 1$$

Sample Output 1:

```
Enter a number: 10
The sum is: 55
```

Sample Output 2:

```
Enter a number: 25
The sum is: 325
```

3. In the following problem, an integer given as input. In the output, the number of lines is equal to this number. In every odd numbered line (e.g. 1st, 3rd, 5th and so on) you have to print the odd numbers from 1 to that line number. On the other hand, in the even numbered lines, print all the even numbers from 2 to that line number.

Sample Input	Output
6	1 2 1 3 2 4 1 3 5 2 4 6

4. Take an integer **n** as input from the user. Write a program that displays the Fibonacci series up to **n**th term.

SampleOutput:

```
Enter a number: 9
Fibonacci Series: 0 1 1 2 3 5 8 13 21
```

5. Write a program that prints a pyramid of asterisks as shown below. The number of lines in the pyramid is an integer provided by the user as input. For example, for the input 4, the output is the following.

```
   *
  ***
 *****
*******
```