Objective:
- To learn to use Conditional Statements
- To learn about different types of loops (for, while, do-while)
- To learn about two keywords such as break, continue, and their usages

if-else	*switch*
| ```
if(condition){
    // do something
}
else{
    // do something else
}
``` | ```
switch(case){
    case 1:
    // do things for case 1
    break;
    case 2:
    // do things for case 2
    break;
    default:
    // do things for default
case
}
``` |
| *for* | *while* |
| ```
for(int i = 0; i < 10; i++){
    // do something
}
``` | ```
while(condition){
    // do something
}
``` |

Tasks:

1. Write a program that will read N numbers using a **while-loop** and will display their sum. N will be input to your program.

2. Write a program that takes an arithmetic operator ('+', '-', '*' or '/') and two operands as input and performs the corresponding arithmetic operation on the operands. You must use a **switch-case** to solve the problem.

```
Enter operator: +
Enter 1st Operand:  23
Enter 2nd Operand: 12
Result is : 35
```

```
Enter operator: /
Enter 1st Operand:  12
Enter 2nd Operand: 6
Result is : 2
```

3. Write a program that prints the following pattern.

```
*

+++
*****

+++++++
*********
```

4. Write a program to find the roots of a quadratic equation.

For $ax^2 + bx + c = 0$, the values of x which are the solutions of the equation are given by :

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Input

```
Enter the coefficients:
a: 2
b: -4
c: -3
```

Output

```
Root 1 : 2.58
Root 2 : -0.58
```