###### Lab 3

###### 3.1 Variables, data type and type conversion

Write a simple C++ program with the preprocessing statements and the main function. The return type of the main function should be int and there should be a return statement, i.e.:

#include <iostream>

using namespace std;

int main() {

// your code

return 0;

}

**Q1. double data type**

Complete the following steps inside the main function:

1. Declare a variable of type double, called "vFloat1", initialize it to be the result of 22.0 divided by 7 (division in C++ is represented by the "/" operator).
2. Output the value of vFloat1.

**Q2. Implicit type conversion**

Add the following code to the main function after your code for **Q1**. What’s the output? Try to think about why.

int i = 5;

char a = 'B';

double x = 1.57;

i = i + x;

x = x \* a;

cout << i << "\n";

cout << x << "\n";

###### 3.2 Operators and basic I/O

Q-3.

a) Write a program **SumOfDigits.cpp** that read a number of three digits and print the sum of digits.

Hint-1: For example, a number N = 346 the output should be 3+4+6 = 13

Hint-2: Use % and / operators.

Expected Output:

|  |
| --- |
| Please Enter a number of Three Digits:  456  Sum of Digits is:  15 |

b) Extend the program of **part-a**, that reads a number of three digits and prints the sum of square of digits.

Hint: For example, a number N = 123 the output should be 1\*1 + 2\*2 + 3\*3 = 14

Expected Output:

|  |
| --- |
| Please Enter a number of Three Digits:  456  Sum of Square of Digits is:  77 |