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
```