Problem 1:

Create a calculator class with attributes of 2 float variables and 4 methods to add, subtract, multiply, divide and a constructor to take in two floats.
Then create an instance of the class, an object to take in 2 arguments ie. 2 floats input by user.

Code:

```
#include<iostream>
using namespace std;

class Calc{
   private:
      float a;
      float b;
   public:
      Calc(float A, float B){
         a=A;
         b=B;
      }
      float add(){
         return a+b;
      }
      float subtrac(){
         if(a>b)
            return a-b;
         else
            return b-a;
      }
      float multiply(){
         return a*b;
      }
      float devide(){
         return a/b;
      }



};

int main(){

   float a,b;
   cin>>a>>b;
   Calc test1(a,b);

   cout<<"Sum = "<<test1.add()<<"\n"<<"Difference = "<<test1.subtrac()<<"\n"<<"Multiple =
"<<test1.multiply()<<"\n"<<"Division = "<<test1.devide()<<endl;
   return 0;
}
```

Output:

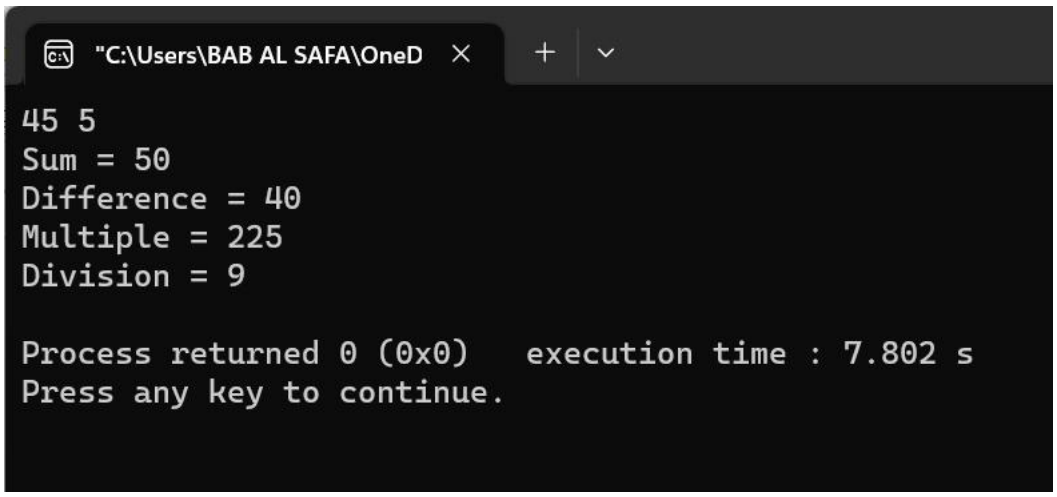

Fig 1: Output on console.

Problem 2:

Create a student class with attributes, char name, int id, char department, and 3 course-gpa and a constructor, and a method to calculate cgpa and print t on console along with his or her information.

Code:

```
#include<iostream>
#include<string>
using namespace std;

class Student{
   private:
      string name;
      int id;
      string dept;
      float c1,c2,c3;
   public:
      Student(string Name, int Id, string Dept, float C1, float C2, float C3){
         name=Name;
         id=Id;
         dept=Dept;
         c1=C1;
         c2=C2;
         c3=C3;
      }
      float cgpaCalc(){
         return (c1+c2+c3)/60;
      }
      void displayInfo(){
         cout<<"Name = "<<name<<"\n"<<"ID = "<<id<<"\n"<<"Dept. = "<<dept<<"\n"<<"cgpa =
"<<cgpaCalc()<<endl;

      }
};

int main(){

   string name;
   int id;
   string dept;
   float c1,c2,c3;
   cin>>name>>id>>dept>>c1>>c2>>c3;
   Student students(name, id, dept, c1, c2, c3);
   students.displayInfo();
   return 0;
}
```

Output:

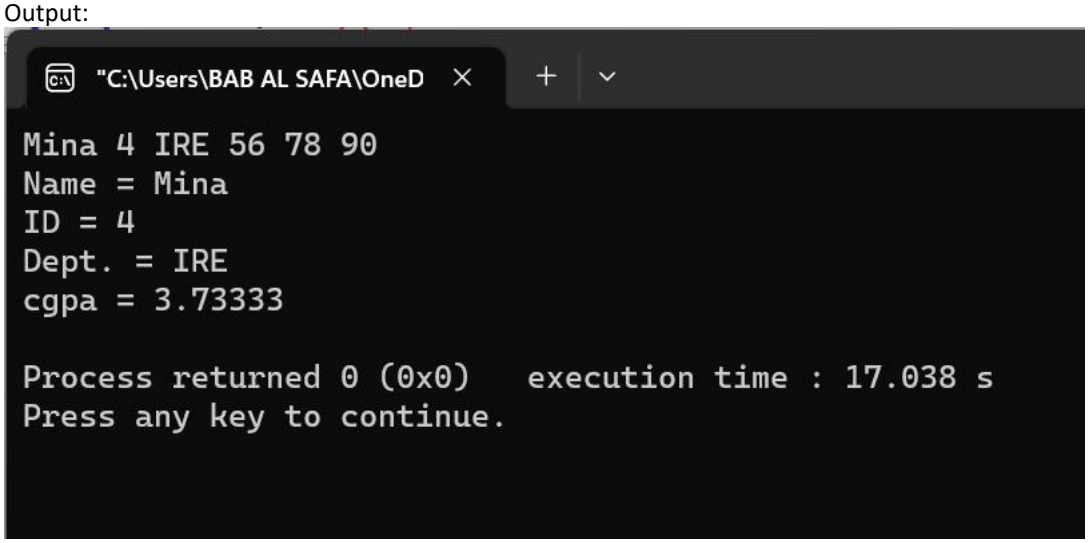

Fig 2: Output on console.