```cpp
/*
Write a C++ program create a calculator for an arithmetic operator (+, -, *, /).
The program should       take two operands from user and performs the operation
on those two operands
depending upon the operator entered by user. Use a switch statement to select the
operation.
Finally, display the result. Some sample interaction with the program might look
like this:
Enter first number, operator, second number: 10 / 3
Answer = 3.333333
Do another (y/n)? y
Enter first number, operator, second number: 12 + 100
Answer = 112
Do another (y/n)? n
*/

#include<iostream>      //including header file
using namespace std;    //declaring scope of program
class calculator        //class name calculator
{
  private:int i,n,a[15];     //declared variable
          float g,h;
           float div;
        public:
            calculator()    //default constructor
             {
               i=0;
               n=0;
               g=0;
               h=0;
               div=0;
             }
            void addition()     //function for addition
              { int add=0;
                cout<<"How many number you have to add:";   //accepting numbers to
add
                 cin>>n;
                 cout<<"\nEnter the numbers:\n";
                for(i=1;i<=n;i++)
                   {
                     cin>>a[i];
                       add=add+a[i];           //calculating addition
                   }

                cout<<"Addition is:"<<add;     //display addition
              }
            void substraction()       //fuunction for substraction
            {
                int sub=0;
                cout<<"How many number you have to substract:";        //
accepting numbers for substraction
                 cin>>n;
                cout<<"\nEnter the numbers:\n";
                for(i=0;i<n;i++)
                   {
                     cin>>a[i];
                     a[0]=-a[0];
                     sub=sub-a[i];                        //calculating substraction
                   }

                cout<<"Substraction is:"<<sub;  //display substraction
                 cout<<endl;
            }
            void multiplication()           //fuction for multiplication
            {
                int mul=1;
```

```cpp
                cout<<"How many number you have to multiply:";          //
accepting numbers for multiplication
                 cin>>n;
                 cout<<"\nEnter the numbers:\n";
                for(i=1;i<=n;i++)
                   {
                    cin>>a[i];
                      mul=mul*a[i];                    //calculating multiplication
                   }

                cout<<"Multiplication is:"<<mul;              //display
multiplication
                cout<<endl;
            }
          void division()                //function for division
            {
              cout<<"\nEnter the first number: ";            //accepting numbers
              cin>>g;
              cout<<"\nEnter the second number: ";
              cin>>h;
              div=g/h;                   //calculating addition
              if(h==0)                   //condition for denominator
              {
                cout<<"\nDivision is not possible as sencond number is zero(0)";
              }
              else
                {
                   if(h!=0)
                   cout<<"\nDivision is: "<<div;           //display answer
                }
            cout<<endl;
            }
};        //end of class

int main()
{
    calculator s;   //creating object of class
    char c,op;
do
{
    cout<<"Which operation you want to do(+,-,*,/): "; //accepting operation to
perform
    cin>>c;
   switch(c)                       //switch case
    {
      case '+' :s.addition();
              break;
      case '-' :s.substraction();
              break;
     case '*' :s.multiplication();
              break;
     case '/' :s.division();
              break;
     default:cout<<"Invalid operation";
   }
cout<<"\nDo you want to continue for further calculation(Y/N):";
cin>>op;
}while(op=='Y'||op=='y');

return 0;
}
/*
OUTPUT:
dell@ghe1de-saurabh16-12-99:~/Desktop/oops_assignment$ g++ ass1oops.cpp
dell@ghe1de-saurabh16-12-99:~/Desktop/oops_assignment$ ./a.out
```

```
Which operation you want to do(+,-,*,/): +
How many number you have to add:3

Enter the numbers:
1 2 3
Addition is:6
Do you want to continue for further calculation(Y/N):y
Which operation you want to do(+,-,*,/): -
How many number you have to substract:3

Enter the numbers:
7 8 9
Substraction is:-10

Do you want to continue for further calculation(Y/N):y
Which operation you want to do(+,-,*,/): *
How many number you have to multiply:3

Enter the numbers:
7 8 9
Multiplication is:504

Do you want to continue for further calculation(Y/N):y
Which operation you want to do(+,-,*,/): /

Enter the first number: 12

Enter the second number: 4

Division is: 3

Do you want to continue for further calculation(Y/N):n
*/
```