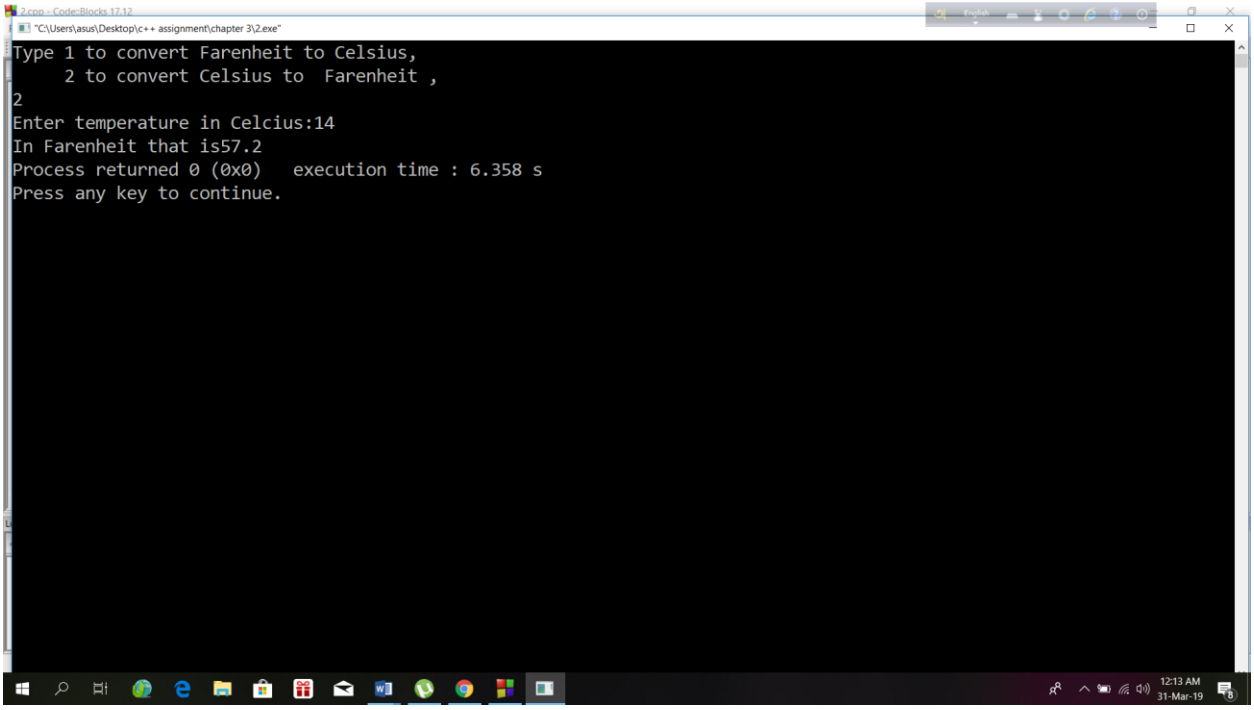
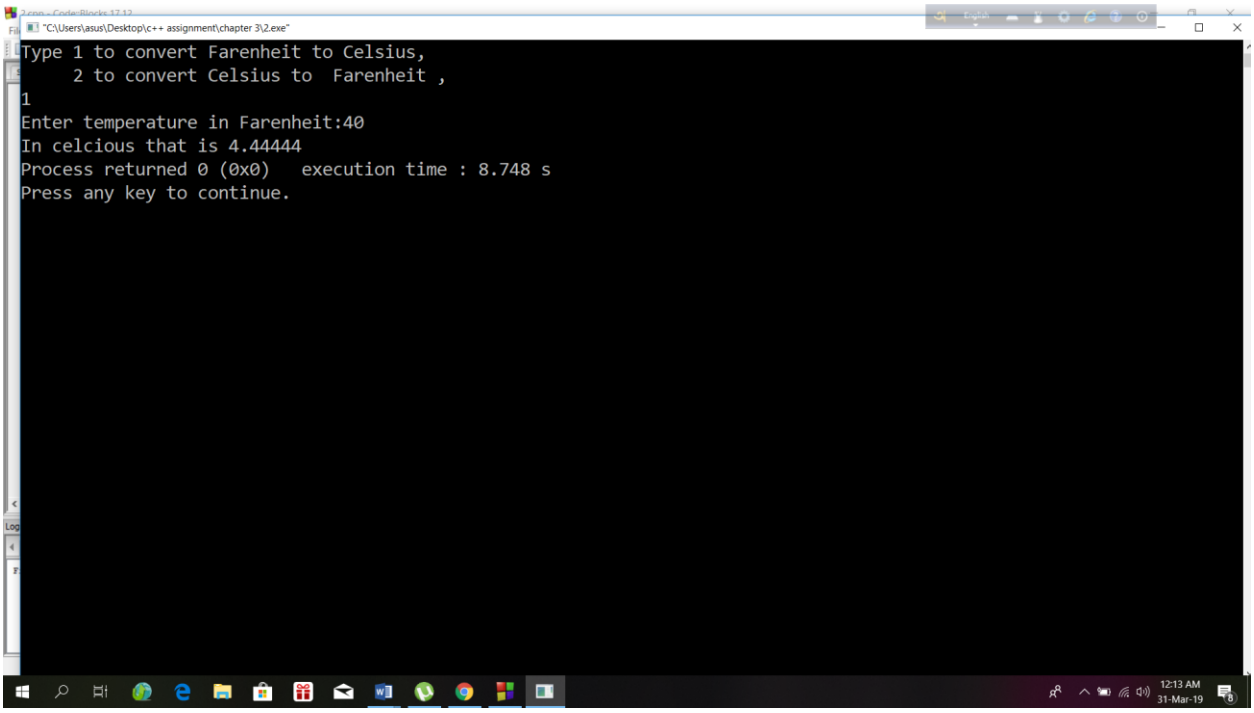
Chapter 3:

Exercise 2:

```
#include<iostream>
#include<iomanip>
using namespace std;
int main()
{
   float input,c,f,a;
   int choice;
   cout<<"Type "<<setw(8)<<"1 to convert Farenheit to Celsius,\n";
   cout<<setw(8)<<"     2 to convert Celsius to  Farenheit ,\n";
   cin>>choice;
   if(choice==1)
   {
      cout<<"Enter temperature in Farenheit:";
      cin>>input;
      c=(((input-32)*5)/9);
      cout<<"In celcious that is "<<c;

   }
   if(choice==2)
   {
      cout<<"Enter temperature in Celcius:";
      cin>>input;
```

```
        f=(((input*9)/5)+32);
        cout<<"In Farenheit that is"<<f;


    }
 return 0;
}
```



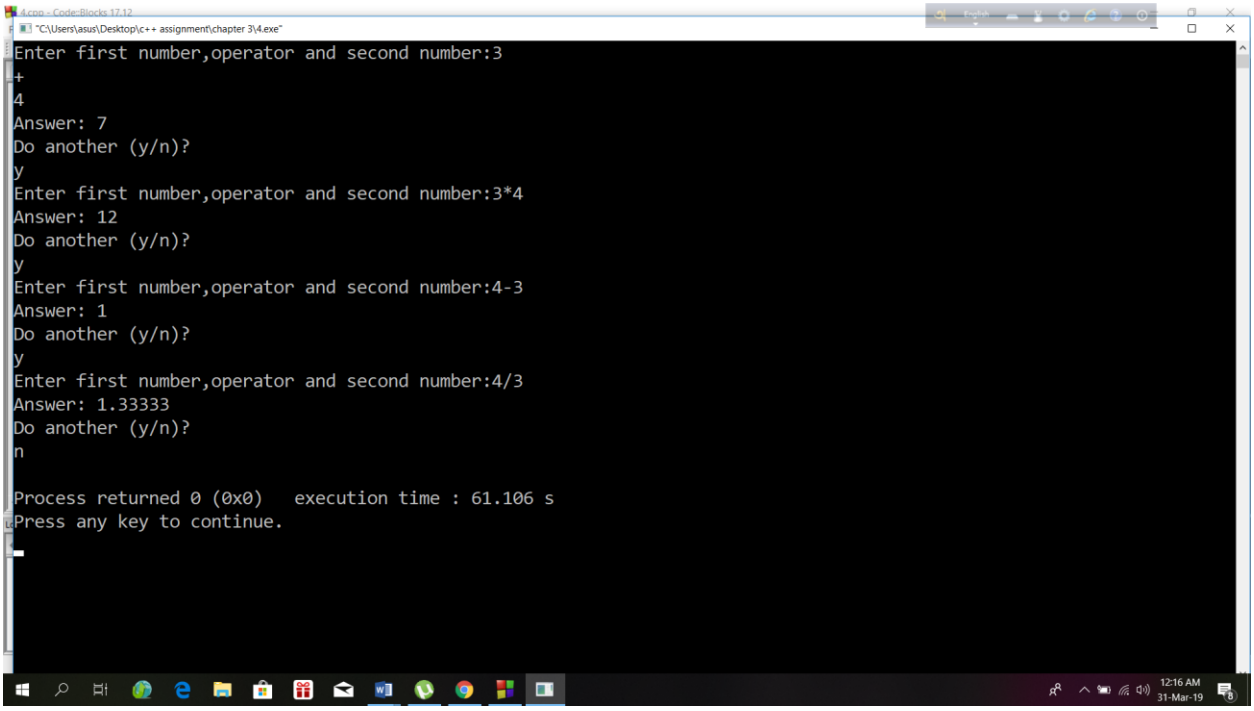


Exercise 4:

```
#include<iostream>
#include<iomanip>
using namespace std;
int main()
{
   float a,b,result;
   char ch,op;
   do
   {
      cout<<"Enter first number,operator and second number:";
      cin>>a>>op>>b;
      if(op=='+')
```

```
    {
        result=a+b;
        cout<<"Answer: "<<result;
    }
    else if(op=='/')
    {
        result=a/b;
        cout<<"Answer: "<<result;
    }
    else if(op=='-')
    {
        result=a-b;
        cout<<"Answer: "<<result;
    }
    else if(op=='*')
    {
        result=a*b;
        cout<<"Answer: "<<result;
    }
    cout<<"\n";
    cout<<"Do another (y/n)?\n";
    cin>>ch;
}
while(ch!='n');
```

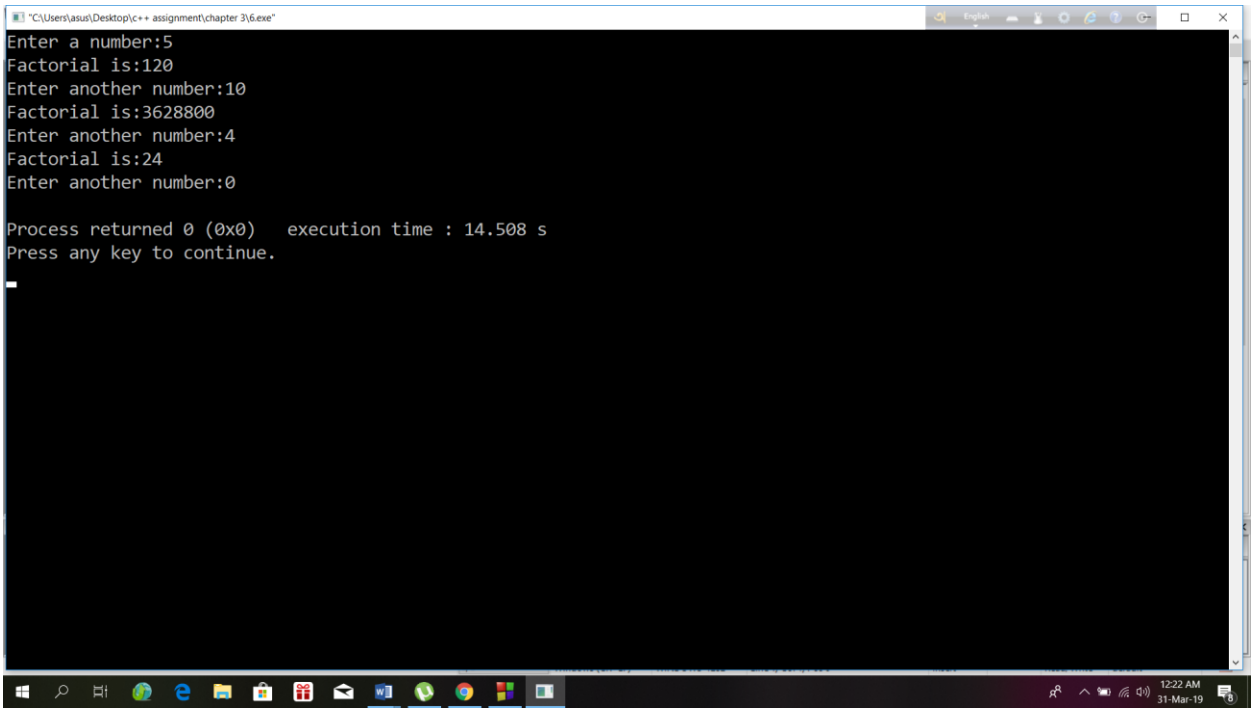
```
    return 0;
}
```


"C:\Users\asus\Desktop\c++ assignment\chapter 3\4.exe"
Enter first number,operator and second number:3
+
4
Answer: 7
Do another (y/n)?
y
Enter first number,operator and second number:3*4
Answer: 12
Do another (y/n)?
y
Enter first number,operator and second number:4-3
Answer: 1
Do another (y/n)?
y
Enter first number,operator and second number:4/3
Answer: 1.33333
Do another (y/n)?
n
Process returned 0 (0x0)   execution time : 61.106 s
Press any key to continue.
12:16 AM
31-Mar-19

Exercise 6:

```
#include<iostream>
#include<iomanip>
using namespace std;
int main()
{
   int i,input,result=1;
   cout<<"Enter a number:";
   while(input!=0)
   {
      result=1;
      cin>>input;
      if(input==0)
         break;
      for(i=input; i>=1; i--)
      {
         result=result*i;
      }
      cout<<"Factorial is:"<<result<<"\n";
      cout<<"Enter another number:";
   }

   return 0;
```

}

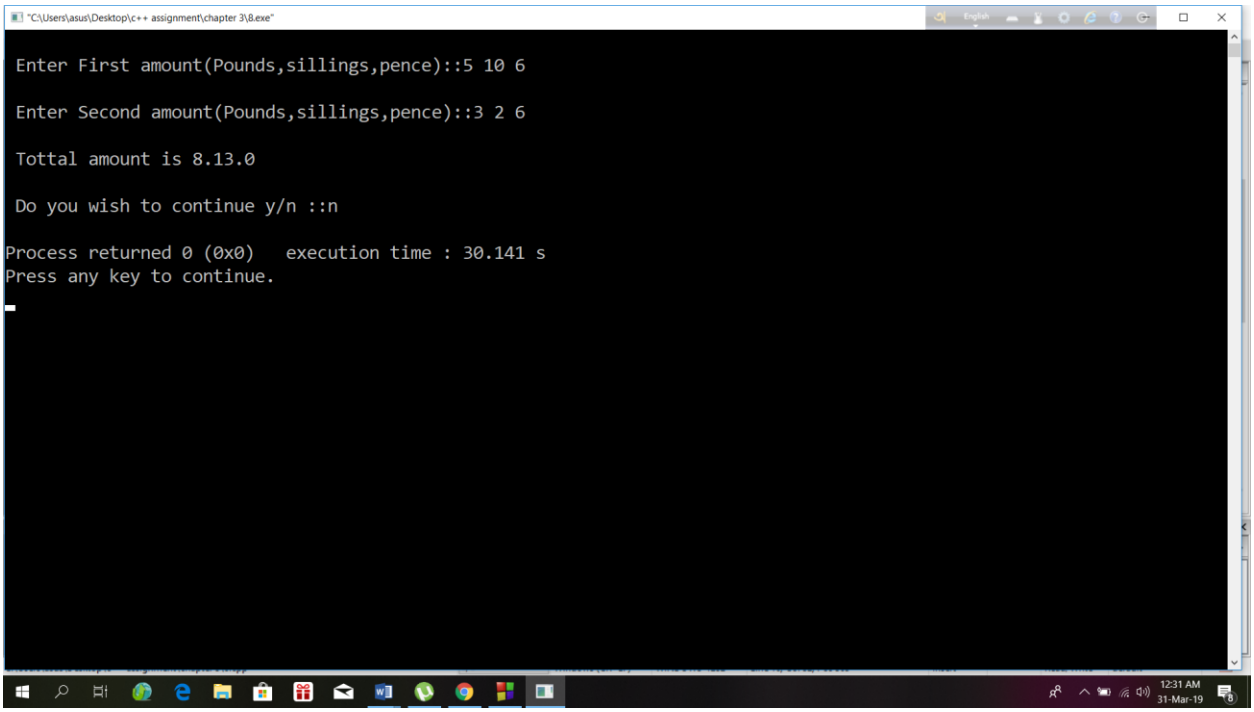


Exercise 8:

```
#include<iostream>
#include<iomanip>
using namespace std;
int main()
{

   char ch ='y';
   int pounds1,sillings1,pence1,pounds2,sillings2,pence2,pounds,sillings=0,pence;

   do
   {
```

```
cout<< "\n Enter First amount(Pounds,sillings,pence)::";
cin>>pounds1
  >>sillings1
  >>pence1;
cout<< "\n Enter First amount(Pounds,sillings,pence)::";
cin>>pounds2
  >>sillings2
  >>pence2;
pounds = pounds1 +pounds2;
pence =pence1 + pence2 ;
if(pence>=12)
{
   sillings++;
   pence-=12;

}
sillings+=sillings1+sillings2;
if(sillings>=20)
{
   pounds++;
   sillings-=20;
}
cout<< "\n Tottal amount is "<<pounds<< "."<<sillings<< "."<<pence<<endl;
cout<< "\n Do you wish to continue y/n ::";
```

```
        cin>>ch;


    }
    while(ch!='n');
    return 0;
}
```

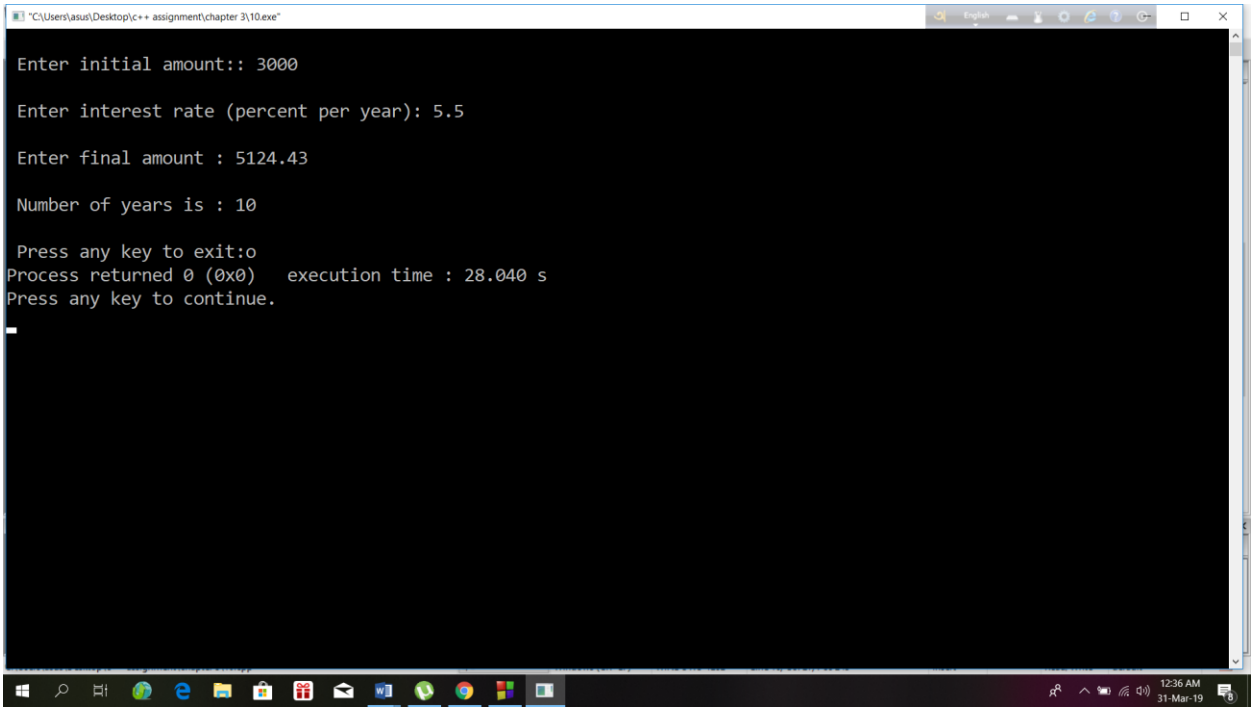


Exercise 10:

```
#include<iostream>
#include<iomanip>
#include<conio.h>
using namespace std;
int main()
```

```
{

   int i;
   float init_amount,rate, finl_amount;

   do
   {
      cout<<"\n Enter initial amount:: ";
      cin >>init_amount;

      cout<<"\n Enter interest rate (percent per year): ";
      cin >>rate;

      cout<<"\n Enter final amount : ";
      cin >>finl_amount;
      i=0;
      while(finl_amount>=init_amount)
      {
         finl_amount -= finl_amount*rate/100;
         i++;
      }
      cout<<"\n Number of years is : "<<i<<endl;
      cout<<"\n Press any key to exit:";
```

```
    }
    while(getche()=='c');

    return 0;
}
```

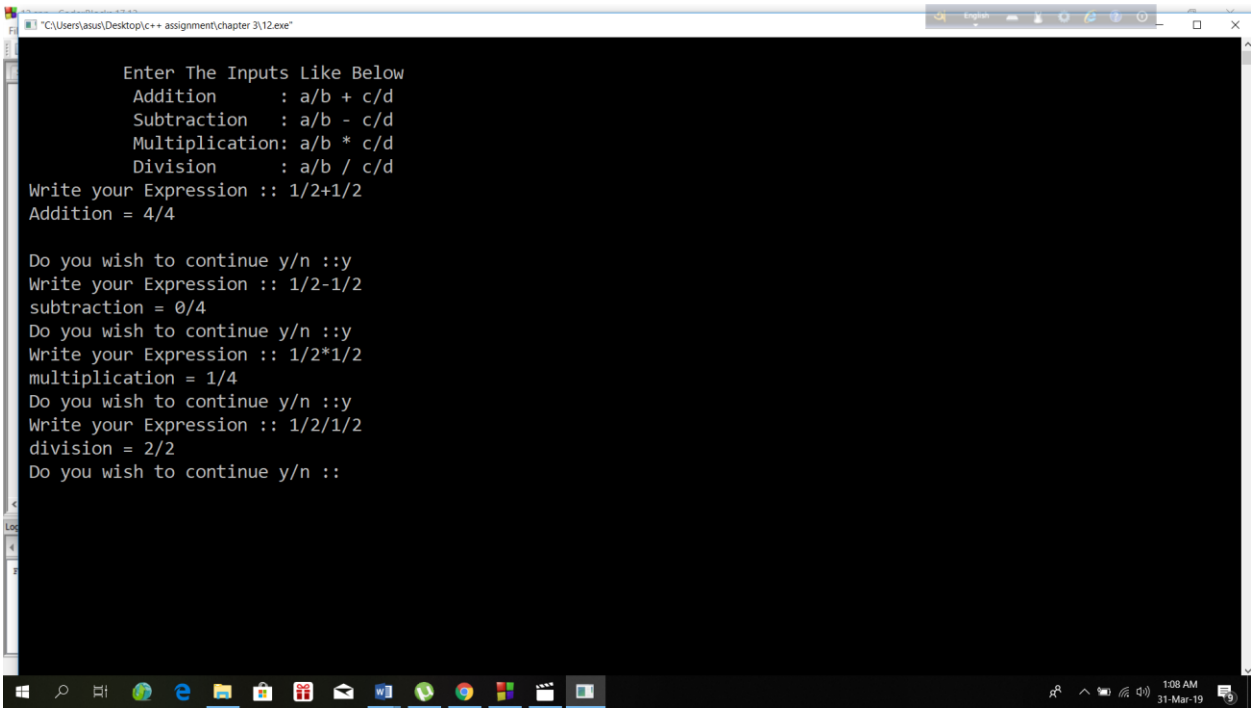


Exercise 12:

```
#include<iostream>
#include<iomanip>
using namespace std;
int main()
{
    char ch = 'y';
    char sign,Operator;
```

```
int a,b,c,d;
cout<<endl;

cout<< "         Enter The Inputs Like Below"<<endl;
cout<< "          Addition      : a/b + c/d    "<<endl;
cout<< "          Subtraction   : a/b - c/d    "<<endl;
cout<< "          Multiplication: a/b * c/d    "<<endl;
cout<< "          Division      : a/b / c/d    "<<endl;



do
{
   cout<<" Write your Expression :: ";
   cin>>a>>sign>>b>>Operator >>c>>sign>>d ;
   if(Operator=='+')
   {
      cout << " Addition = "<<(a*d + b*c)<<sign<<(b*d) <<endl;
   }
   if(Operator=='-')
   {
      cout << " subtraction = "<<(a*d - b*c)<<sign<<(b*d);
   }
   if(Operator=='*')
   {
```

```
        cout << " multiplication = "<<(a*c) <<sign<<(b*d);
      }
      if(Operator=='/')
      {
        if(b!=0&&c!=0)
        {
          cout << " division = "<<(a*d)<<sign<<(b*c);
        }
        else
        {
          cout<< "\n Math Error!!!"<<endl;
        }
      }
      cout<< "\n Do you wish to continue y/n ::";
      cin>>ch;
   }
   while(ch!='n');
return 0;}
```


"C:\Users\asus\Desktop\c++ assignment\chapter 3\12.exe"
Enter The Inputs Like Below
Addition : a/b + c/d
Subtraction : a/b - c/d
Multiplication: a/b * c/d
Division : a/b / c/d
Write your Expression :: 1/2+1/2
Addition = 4/4
Do you wish to continue y/n ::y
Write your Expression :: 1/2-1/2
subtraction = 0/4
Do you wish to continue y/n ::y
Write your Expression :: 1/2*1/2
multiplication = 1/4
Do you wish to continue y/n ::y
Write your Expression :: 1/2/1/2
division = 2/2
Do you wish to continue y/n ::
1:08 AM
31-Mar-19