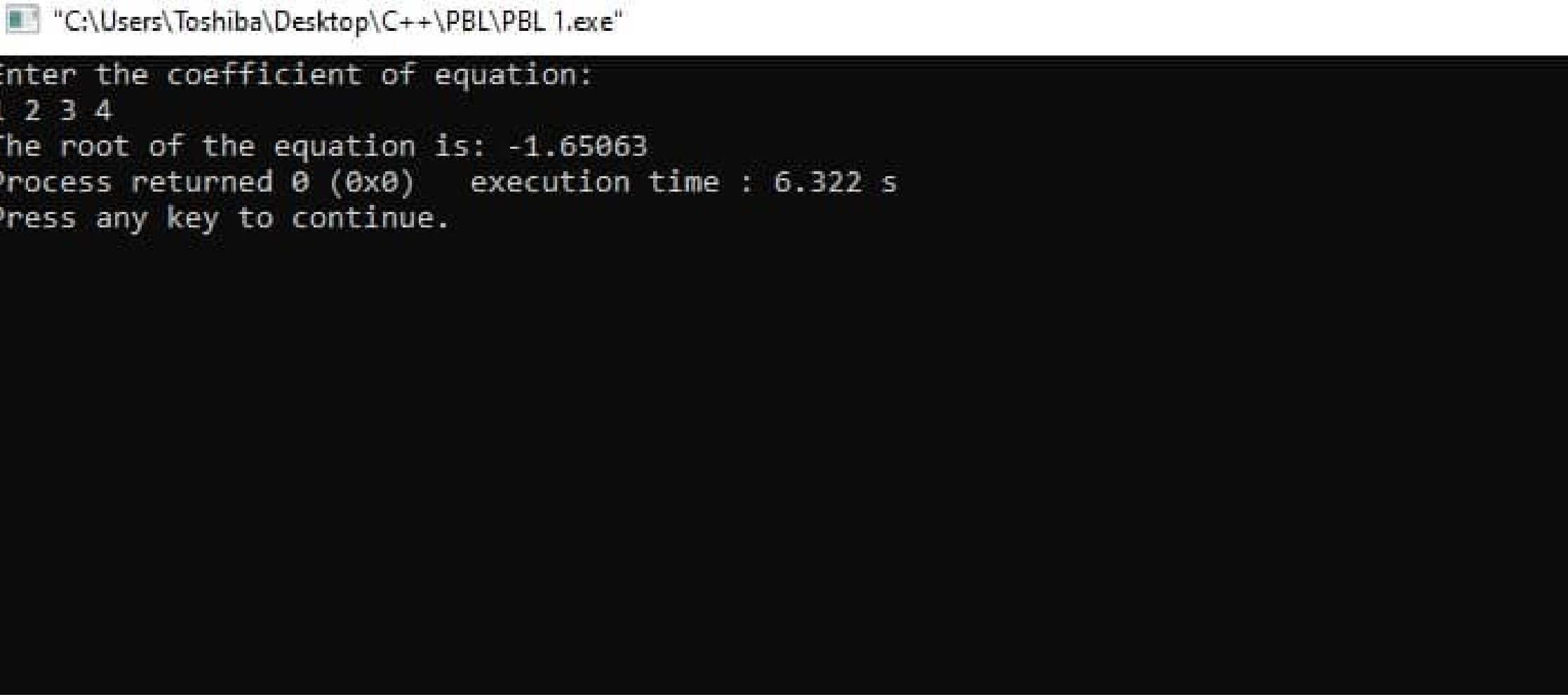
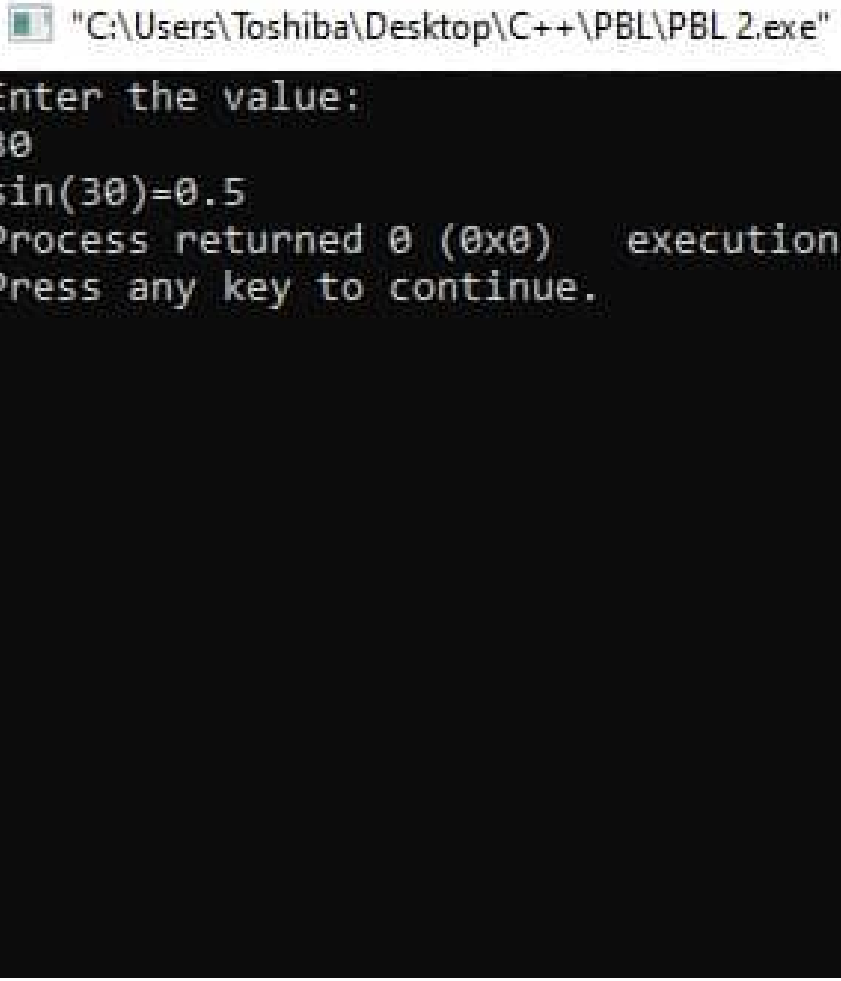
```cpp
#include<iostream>
#include<cmath>
using namespace std;
int main()
{
    int a,b,c,d;
    float x;
    double  f,f1,f2;
    cout<<"Enter the coefficient of equation: "<<endl;
    cin>>a>>b>>c>>d;
    x=1;
    f =a*pow(x,3)+b*pow(x,2)+c*x+d;
    f1=3*a*pow(x,2)+2*b*x+c;
    f2=6*a*x+2*b;
    while(fabs((2*f*f1)/((2*pow(f1,2))-(f*f2)))>0.0001)
    {
            f=a*pow(x,3)+b*pow(x,2)+c*x+d;
    f1=3*a*pow(x,2)+2*b*x+c;
    f2=6*a*x+2*b;
    x-=(2*f*f1)/((2*pow(f1,2))-(f*f2));
    }
        cout<<"The root of the equation is: "<<x;
        return 0;
}
```


"C:\Users\Toshiba\Desktop\C++\PBL\PBL 1.exe"
Enter the coefficient of equation:
1 2 3 4
The root of the equation is: -1.65063
Process returned 0 (0x0)   execution time : 6.322 s
Press any key to continue.

```cpp
#include <iostream>
using namespace std;
double radians(double degrees)
{
double radians;
double const pi = 3.14159265358979323846;
radians = (pi/180)*degrees;
return radians;
}
double factorial(int x)
{
double fact = 1;
for(; x >= 1 ; x--)
{
fact = x * fact;
}
return fact;
}
double power(double x,double n)
{
double output = 1;
while(n>0)
{
output =( x*output);
n--;
}
return output;
}
```

```
float sin(double radians)
{
double a,b,c;
float result = 0;
for(int y=0 ; y!=9 ; y++)
{
a= power(-1,y);
b= power(radians,(2*y)+1);
c= factorial((2*y)+1);
result = result+ (a*b)/c;
}
return result;
}
double n,ans,a;
int main()
{
cout<<"Enter the value: "<<endl;
cin>>n;
a = radians(n);
ans = sin(a);
cout<< "sin("<<n<<")="<< ans;
return 0;
}
```


"C:\Users\Toshiba\Desktop\C++\PBL\PBL 2.exe"
Enter the value:
30
sin(30)=0.5
Process returned 0 (0x0)   execution time : 8.911 s
Press any key to continue.