

Operators

- Various types of operators are supported by C++
- They are categorised as
 - unary **1**
 - binary **2**
 - ternary **3**
- Each operator has its precedence and associativity
- Higher precedence operators are executed first

Expression

- Expression contains operands and operator
- Expressions results in a single value
- datatype of result of expression is the largest datatype used in expression

Compound Arithmetic Operator

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

```
int main()
{
    int sum=10,x=5;
    sum+=x;
    cout<<sum<<endl;

    int fact=10,y=5;
    fact*=y;
    cout<<fact<<endl;
    return 0;
}
```

For example, if you add an integer and a floating-point number, the result will be a floating-point number because it can accommodate both integer and decimal values.

Program to find root of Quadratic Equation

```
#include <iostream>
#include <math.h>
using namespace std;
int main()
{
    int a,b,c;
    float root1,root2;
    cout<<"Enter 3 values";
    cin>>a>>b>>c;
    root1=(-b+sqrt((b*b)-(4*a*c)))/(2*a);
    root2=(-b-sqrt((b*b)-(4*a*c)))/(2*a);
    cout<<root1<<" "<<root2<<endl;

    return 0;
}
```

Program to find Area of Circle

```
#include <iostream>
using namespace std;
int main()
{
    float r,area;
    cout<<"Enter the Radius";
    cin>>r;
    area=3.1425f*r*r;
```

```
    cout<<"Area is "<<area<<endl;  
    return 0;  
}
```