

## Java program:-

```
Import java.util.Scanner;
Public class Quadratic
{
Public static void main( string [] args)
{
Int a,b,c;
Double root1,root2;
System.out.println("Enter the coefficients");
Scanner in = new Scanner (System.in);
a=in.nextInt();
b=in.nextInt();
C=in.nextInt();
double d =b*b-4*a*c;
System.out.println("Determinant="+d);
If(d>0)
{
root1=(-b+Math.sqrt(d))/(2*a);
root2=(-b-Math.sqrt(d))/(2*a);
System.out.println("the roots are real and distinct");
System.out.println("root1=%2f and root2=%2f",root1,root2);
}
else if (d==0)
{
Root1=root2=-b/(2*a);
System.out.println("The roots are real and equal");
System.out.format("root1=root2=%2f;",root1);
}
Else
{
Double real =-b/(2*a);
Double imaginary = Math.sqrt(-d)/(2*a);
System.out.println("The roots are imaginary");
System.out.println("root1=%2f+%2fi",real,imaginary);
System.out.println("\nroot2 =%2f-%2fi",real,imaginary);
}
}
}
```