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Windows PowerShell
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PS C:\Users\bmsce\Desktop\manvi java> javac Roots.java
PS C:\Users\bmsce\Desktop\manvi java> java Roots
MANVI SHARMA 1BM22CS149
Enter Coefficients of the equation:
1
2
1
Roots are real and equal
R1=-1.0
R2=-1.0
PS C:\Users\bmsce\Desktop\manvi java> java Roots
MANVI SHARMA 1BM22CS149
Enter Coefficients of the equation:
2
3
1
Roots are real and distinct
R1=-0.5
R2=-1.0
PS C:\Users\bmsce\Desktop\manvi java> java Roots
MANVI SHARMA 1BM22CS149
Enter Coefficients of the equation:
2
3
2
Roots are distinct and imaginary
R1=-0.75+i0.6614378277661477
R2=-0.75-i0.6614378277661477
PS C:\Users\bmsce\Desktop\manvi java> |
```

```
Roots
File Edit View

import java.util.Scanner;
class Roots
{
    public static void main(String xx[])
    {
        double r1;
        double r2;
        Scanner s1 = new Scanner(System.in);
        System.out.println(" MANVI SHARMA 1BM22CS149 ");
        System.out.println("Enter Coefficients of the equation:");

        double a=s1.nextDouble();
        double b=s1.nextDouble();
        double c=s1.nextDouble();

        double d=(b*b)-(4*a*c);

        if(d==0)
        {
            System.out.println("Roots are real and equal");
            r1 = r2 = -b/(2*a);
            System.out.println("R1=" + r1);
            System.out.println("R2=" + r2);
        }
        else if(d>0)
        {
            System.out.println("Roots are real and distinct");
            r1=(-b + Math.sqrt(d)) / (2*a);
            r2=(-b - Math.sqrt(d)) / (2*a);
            System.out.println("R1=" + r1);
            System.out.println("R2=" + r2);
        }
        else
        {
            System.out.println("Roots are distinct and imaginary");

            double x = -b / (2*a);
            double y = ( Math.sqrt(-d)) / (2*a);

            System.out.println("R1=" + x + "+i" + y);
            System.out.println("R2=" + x + "-i" + y);
        }
    }
}
```