QUADRATIC EQUATION

```
import java.util.*;
class Roots
{
  public static void main (String args[])
  {
    int a,b,c,d,f=0;
    Scanner sc = new Scanner (System.in);
    System.out.print("Enter the values ");
    a=sc.nextInt();
    b=sc.nextInt();
    c=sc.nextInt();
    d=(b*b)-(4*a*c);
    if(d==0)
    {
      System.out.println("Roots are real and
      Equal"); f=1;
    }
  else if(d>0)
    {
      System.out.println("Roots are real and
      unequal");
      f=1;
    }
  else
    {
      System.out.print("Roots are imaginary");
    }
  else if((f==1)
    {
      float r1=(float)(-b+Math.sqrt(d))/
               (2*a);
      float r2=(float)(-b-Math.sqrt(d))/
               (2*a);
      System.out.printf("Roots are : %.4f
      and %.4f", r1, r2);
    }
}
```

OUTPUT

Enter the values
1 4 6
Roots are imaginary.

Enter the values
3.12.12
Roots are real and equal
Roots are : -2.0, -2.0.

Enter the values
2 4 -2
Roots are real and unequal
Roots are : 0.4142, -2.4142.