```
import java.util.Scanner;
class quad
{
    public static void main(String args[])
    {
        Scanner s=new Scanner(System.in);
        System.out.println("the quadratic equation
                    is ax^2+bx+c");
        System.out.println("Enter the value a");
        int a=s.nextInt();
        System.out.println("Enter the value b");
        int b=s.nextInt();
        System.out.println("Enter the value c");
        int c=s.nextInt();
        double d=Math.pow(b,2)-(4*a*c);
        int deno=2*a;
        double r1,r2;
        if(d>0)
        {
            System.out.println("the roots are real
                    and unequal");
            r1=(-b+Math.sqrt(d))/(deno);
            r2=(-b-Math.sqrt(d))/(deno);
            System.out.println("the roots are
                    "+r1+"and"+r2);
        }
```

```
else if (d == 0)
    {
        System.out.println("The roots are
                            real and equal");

        r1 = (-b)/(deno);

        r2 = (-b)/(deno);
        System.out.println("The roots are"
                           +r1+"and"+
                           r2);

    }
    else
      {
        System.out.println("There are no
                            real solutions for
                            the equation");
      }
  }
}
```

URBAN EDGE

Algorithm for lab program-1

1) Input value of a, b, c

2) Calculate d = b*b - 4*a*c

3) Calculate deno = 2*a

4) If (d > 0)
   Display "Roots are real and unequal"

5) Calculate $r_1 = (-b + \sqrt{d})/deno$ and $r_2 = (-b - \sqrt{d})/deno$

6) else if (d = 0)
   Display ("Roots are real and equal");

7) Calculate $r_1 = r_2 = -b/2a$

8) else
   Display ("There are no real solutions for the equation")

9) Print $r_1, r_2$

10) End the algorithm.