```java
import java.util.*;
class roots
{
    public static void main(String args[])
    {
        double a,b,c,x,y,d;
        System.out.println("Enter the coefficients a,b,c:");
        Scanner s=new Scanner(System.in);
        a=s.nextFloat();
        b=s.nextFloat();
        c=s.nextFloat();
        d=(b*b)-(4*a*c);
        if(d==0)
        {
            x=-b/(2*a);
            y=x;
            System.out.println("Both Roots Are Real and Equal ");
            System.out.println("R1="+x+" And R2="+y);
        }
        else if(d>0)
        {
            x=(-b+Math.sqrt(d))/(2*a);
            y=(-b-Math.sqrt(d))/(2*a);
            System.out.println("Roots Are Real and Distinct");
            System.out.println("R1="+x+" And R2="+y);
        }
        else
        {
            System.out.println("Roots Are Imaginary. No Real Solution!");
        }
    }
}
```

```
Terminal                                          ⊡

Enter the coefficients a,b,c:
1
-16
64
Both Roots Are Real and Equal
R1=8.0 And R2=8.0

Process finished.
|
```

```
×      Terminal                              ⧉

Enter the coefficients a,b,c:
2
-3
-1
Roots Are Real and Distinct
R1=1.7807764064044151 And R2=-0.2807764064044

Process finished.
```

```
×     Terminal                    ⧉

Enter the coefficients a,b,c:
5
-4
2
Roots Are Imaginary. No Real Solution!

Process finished.
```

```java
1  import java.util.*;
2
3  class ArrPosNeg
4  {
5    public static void main(String args[])
6    {
7    int n,a[],p=0,neg=0,z=0;
8    System.out.println("Enter Number of Elements:");
9    Scanner s=new Scanner(System.in);
10   n=s.nextInt();
11   a=new int[n];
12   for(int i=0;i<n;i++)
13   {
14       System.out.println("Enter Array Elements:");
15       System.out.println("A["+(i+1)+"]:");
16       a[i]=s.nextInt();
17       if(a[i]>0)
18       p++;
19       else if(a[i]<0)
20       neg++;
21       else
22       z++;
23   }
24   System.out.println("No of positive elements:"+p);
25   System.out.println("No of negative elements:"+neg);
26   System.out.println("No of Zeroes:"+z);
27   }
28 }
```

```
Enter Number of Elements:
5
Enter Array Elements:
A[1]:
0
Enter Array Elements:
A[2]:
1
Enter Array Elements:
A[3]:
-1
Enter Array Elements:
A[4]:
4
Enter Array Elements:
A[5]:
5
No of positive elements:3
No of negative elements:1
No of Zeroes:1
```

```
Enter Number of Elements:
6
Enter Array Elements:
A[1]:
12
Enter Array Elements:
A[2]:
78
Enter Array Elements:
A[3]:
34
Enter Array Elements:
A[4]:
-123
Enter Array Elements:
A[5]:
-11
Enter Array Elements:
A[6]:
7
No of positive elements:4
No of negative elements:2
No of Zeroes:0
```

```java
3  public class Odd_even_array {
4      public static void main(String[] args){
5          int n, j = 0, k = 0, sum = 0, avg, max , min;
6          Scanner s = new Scanner(System.in);
7          System.out.print("Enter the number of elements in array:");
8          n=s.nextInt();
9          int[] a = new int[n];
10         int[] b = new int[n];
11         int[] c = new int[n];
12         System.out.println("Enter the elements of the array:");
13         for(int i = 0;i<n;i++){
14             a[i] = s.nextInt();
15         }
16         for(int i = 0;i<n;i++){
17             if (a[i] % 2 == 0) {
18                 c[j] = a[i];
19                 sum += a[i];
20                 j++;
21             } else {
22                 b[k] = a[i];
23                 k++;
24             }
25         }
26         //avg = sum / j;
27         max = c[0];
28         min = c[0];
29         for(int i = 0; i<j;i++){
30             if (c[i] > max){
31                 max = c[i];
32             }
33             if (c[i] < min){
34                 min = c[i];
35             }
36         }
37         System.out.println("For the even array sum is "+sum+" average is "+(sum/j)+" maximum is "+max+" minimum is "+
38
39     }
40 }
```

```
  ×    Terminal                                                                    ⧉
Enter the number of elements in array:6
Enter the elements of the array:
2
11
42
17
5
6
For the even array sum is 50 average is 16 maximum is 42 minimum is 2
```