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

Extra Programs:

1. Accept an array of size n from the user. Find the sum of even indices (0, 2, 4...) and sum of odd indices (1, 3, 5...) and prin

```java
import java.util.*;
class Even_odd
{
    public static void main (String args[])
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number of elements: ");
        int n = sc.nextInt();
        int a[] = new int[n];
        int even = 0;
        int odd = 0;
        for (int i=0; i<n; i++)
        {
            System.out.println("Enter a["+i+"]");
            a[i] = sc.nextInt();
        }
        for (int i=0; i<a.length; i++)
        {
            if (i%2==0)
                even += a[i];
            else
                odd += a[i];
        }
```

```java
System.out.println("Sum of even indices = " + even);
System.out.println("Sum of odd indices = " + odd);
    }
}
```

2. Accept an array of n integers. Find the number of positive number, negative numbers and zeros.

```java
import java.util.*;
Class Array_num
{
    public static void main(String args[])
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number of elements:");
        int n = sc.nextInt();
        int a[] = new int[n];
        int pos = 0;
        int nog = 0;
        int Zero = 0;
        for (int i = 0; i < n ; i++)
        {
            System.out.println("Enter a[" + i + "] ");
            a[i] = sc.nextInt();
        }
        for (int i = 0; i < a.length ; i++)
        {
            if (a[i] > 0)
                pos++;
            else if (a[i] < 0)
                neg++;
            else
                Zero++;
        }
System.out.println("Number of positive numbers is:" + pos);
System.out.println("Number of negative numbers is:" + neg);
System.out.println("Number of zeroes is :" + zero);
    }
}
```

3. Consider a super market bill. Accept a double array holding rate per item of say x items and an int array showing the quantity purchased by a customer. Calculate the total bill amount and the final bill amount after giving discounts as per the following:

- Total bill amount >= 10000, discount = 5%.
- Total bill amount >= 7500 and < 10000, discount = 3%.
- Total bill amount >= 5000, discount = 2%.

```java
import java.util.*;
class BillArray
{
    public static void main(String args[])
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number of items :");
        int n = sc.nextInt();
        double indTot, t = 0;
        double rpi[] = new double[n];
        int qua[] = new int[n];
        for (int i = 0; i < n; i++)
        {
            System.out.println("Enter quantity of purchase and rate per item " + (i+1));
            int q = sc.nextInt();
            double r = sc.nextDouble();
            qua[i] = q;
            rpi[i] = r;
        }
        for (int i = 0; i < n; i++)
        {
            indTot = qua[i] * rpi[i];
            t += indTot;
        }
        if (t >= 10000) {
            System.out.println("Discount = 5%. Total bill = " + t + "Discounted bill = " + (t - t * 0.5));
        }
```

```java
else if (t >= 7500) {
    System.out.println ("Discount = 3%.. Total bill =" + t +" Discoun
    bill =" + (t - t * 0.03));
else if (t >= 5000) {
    System.out.println ("Discount = 2%. Total bill =" + t +
        " Discounted bill =" + (t - t * 0.02));
}
else {
    System.out.println ("No discount. Total bill =" + t);
}
}
}
```

4. Accept an array A of n elements. Create two new arrays where the first one say B that holds all the odd numbers from array A and the second say C holds the even numbers from array A. Display the sum, avg, max and min of array C.

```java
import java.util.Scanner;

class Array-sum1
{
    public static void main (String args[])
    {
        Scanner sc = new Scanner(System.in);
        int i, n, j=0, k=0, sum=0, avg=0, max=0, min=0;
        System.out.println ("Enter no. of elements :");
        n = sc.nextInt();
        int a[] = new int[n];
        int b[] = new int[n];
        int c[] = new int[n];
        max = c[0];
        System.out.println ("Enter all the elements :");
        for (i=0; i < n; i++)
        {
            a[i] = sc.nextInt();
        }
```

```java
for(i=0 ; i<n; i++)
{
    if (a[i] /. 2 != 0)
    {
        b[j] = a[i];
        j++;
    }
    else
    {
        c[k] = a[i];
        k++;
    }
}
System.out.println ("odd :");
if (j>1)
{
    for (i=0; i<(j-1); i++)
    {
        System.out.println (b[i]);
    }
    System.out.println (b[j-1]);
}
else
{
    System.out.println ("No number");
}
System.out.println ("Even: ");
if(k>1)
{
    for (i=0; i<(k-1); i++)
    {
        System.out.println (c[i]);
    }
    System.out.println (c[k-1]);
}
for(i=0 ; i< c.length ; i++)
{
    sum+ = c[i];
    avg = sum/k;
}
for(i=0 ; i<k; i++){
    min = c[0];
    if ( c[i] >max){
        max = c[i];
    }
}
```

```java
if (c[i] < min) {
    min = c[i];
}
}
System.out.println("Sum = " + sum);
System.out.println("Average = " + avg);
System.out.println("Maximum is = " + max);
System.out.println("Minimum is = " + min);

}
}
```