ARRAYS PROGRAMS

1.FIND THE AVERAGE OF THE 5 ELEMENTS

```
package Arrays21;

public class Average {

	public static void main(String[] args) {

		int[] a= {10,20,30,40,50};
		int sum=0;
		for(int i=0;i<a.length;i++)
		{
			sum+=a[i];
		}
	double avg=sum/a.length;
		System.out.println("average is "+avg);
	}
}
```

O/P

10+20+30+40+50/5;

150/5=30

Average is 30;

2. CHECCK THE USER ENTERD A NUMBER IS MATCHED IN GIVEN ARRAY.

```
package Arrays21;

	import java.util.Scanner;

	public class ChecknumAvilible {
```

```
        public static void main(String[] args) {
        Scanner scn=new Scanner(System.in);
    System.out.println("Enter a number");
    int n=scn.nextInt();
    int[] a= {10,20,30,40,50};
boolean flag = false;
        for(int i=0;i<a.length;i++)
        {
            if(a[i]==n)
            {
                flag = true;
                break;
            }

        }
        if(flag==true)
            System.out.println("Matched");
        else
            System.out.println("Not Matched");
    }

}
```

O/P

Enter a number

30

30 is Matched in array.

3.COUNT MATCHING ELEMRNTS IN GIVEN ARRAY?

```
package Arrays21;
    import java.util.Scanner;
    public class CountMatchingIndex {
        public static void main(String[] args) {
    int count=0;
     Scanner scn=new Scanner(System.in);
     System.out.println("Enter a number");
```

```
int n=scn.nextInt();
int[] a= {10,20,30,20,40,20,20};
for(int i=0;i<=a.length-1;i++)      {
 if(a[i]==n)        {
 count++;
  }
      }
 System.out.println(count);
}
}
```

O/P

```
Enter a Number
20
Count is 4
```

4.FIND THE CUBES IN GIVEN ARRAY ?

```
package Arrays21;

public class Cube {

	public static void main(String[] args) {
		int[] a= {1,2,3,4,5};
		int cube=0;
		for(int i=0;i<=a.length-1;i++)
		{
			cube=a[i]*a[i]*a[i];
			//cube = (int) Math.pow(a[i], 3);
			System.out.println(cube);
		}
	}
}
```

O/P

```
1 1
2 8
3 27
4 64
5 125
```

5.CHECK THE HOW MANY EVEN NUMBERS AND ODD NUMBERS GIVEN ARRAY ?

```
package Arrays21;

import java.util.Scanner;

public class Even {

	public static void main(String[] args) {
		Scanner scn=new Scanner(System.in);
		  System.out.println("Enter a size");
		  int size=scn.nextInt();
		  int [] a=new int[size];
		  System.out.println("Enter the array elements");
		  for(int i=0;i<size;i++)
		  {
			  a[i]=scn.nextInt();
```

```
                    }
    for(int i=0;i<=a.length-1;i++)
    {
        if(a[i]%2==0)
        {
            System.out.println(a[i]+" even");
        }
        else
        {
            System.out.println(a[i]+"odd");
        }
    }

        }

}
```

O/P

Enter a values

2

3

4

5

6

7

8

9

1

10

2 even

3odd

4 even

5odd

6 even

7odd

8 even

9odd

1odd

10 even

6. FIND THE EVEN INDEX SUM OF AN ARRAY ?

```
package Arrays21;

import java.util.Scanner;

public class EvenIndex {

	public static void main(String[] args) {
		Scanner scn=new Scanner(System.in);
		System.out.println("Enter a Size");
		int size=scn.nextInt();
		int [] a=new int[size];
		System.out.println("Enter a values");
		int sum=0;
		for(int i=0;i<size;i++)
		{
			a[i]=scn.nextInt();
		}

		for(int i=0;i<=a.length-1;i++)
		{
			if(i%2==0)
			{
				sum=sum+a[i];

		}
		}
		System.out.println(sum);

	}

}
```

O/p

```
Enter a Size
3
Enter a values
10
20
30
40 sum
```

7.Print Maximum Element Of An Array?

```
  package Arrays21;

public class MaxValueOfArray {

        public static void main(String[] args) {
    int[] a= {10,20,50,60,150,70,100};

    int max=a[0];
    for(int i=1;i<=a.length-1;i++)
    {
          if(a[i]>max)   max=a[i];
    }
    System.out.println(" Max value is "+max);
        }

}
```

O/p
150

8. PRINT MINIMUM VALUE OF ARRAY?

```
package AllArraysProgramms;

public class Min {

        public static void main(String[] args) {
//              25.  Find smallest element in a n array
                int[] a= {50,30,20,10,40};
                int min=a[0];
                for(int i=0;i<a.length;i++)
                {
                        if(min>a[i])
                {
                                min=a[i];
                }
                }
                System.out.println(min);
        }
```

```
}
```
O/p
10

9.MERGE THE TWO ARRAYS?

```
package Arrays21;

import java.util.Arrays;

import java.util.Scanner;

public class MergeTwoArray {

//Merging the to ar

	public static void main(String[] args) { Scanner sc
		= new Scanner(System.in);
		System.out.println("Enetr the size of array");
		int size=sc.nextInt();

		int arr1[]=new int[size];

		System.out.println("Enetr the 1st array elements");

		for (int i = 0; i < arr1.length; i++)

		{

			arr1[i]=sc.nextInt();

		}

		System.out.println("Enetr the size of 2nd
		array"); int size2=sc.nextInt();
		int arr2[]=new int[size2];

		System.out.println("Enetr the 2nd array elements");

		for (int i = 0; i < arr2.length; i++)

		{

			arr2[i]=sc.nextInt();

		}
```

```
                int[] arr3=new
                int[arr1.length+arr2.length]; int ind=0;

                for (int i = 0; i < arr3.length; i++)

                {

                        if(i<arr1.length)


                                arr3[i]=arr1[i];

                        else

                        {

                                arr3[i]=arr2[ind];

                                ind++;

                        }

                }

                System.out.println(Arrays.toString(arr3));

        }

}
```

Another Process

```
int[] a1= {10,30,50,70,90};

int[] a2= {20,40,60,80};

int[] a3=new int[a1.length+a2.length];
int k=0;

for(int i=0;i<a3.length;i++)

{
if(i<a1.length)

                a3[i]=a1[i];
else

{
```

```
                a3[i]=a2[k];
                k++;
}
}
for(int i=0;i<a3.length;i++)
{
System.out.println(a3[i]); }
 }
 }
```

O/P

```
Enetr the size of array
5
Enetr the 1st array
elements 10 20 30 40 50
Enetr the size of 2nd
array 5
Enetr the 2nd array elements
60
70
80
90
100
[10, 20, 30, 40, 50, 60, 70, 80, 90, 100]
```

10.PRINT TWO ARRAYS ZIGZAG ?

```
package AllArraysProgramms;
import java.util.Arrays;
```

```
public class ZigZag {

	public static void main(String[] args) {
//		42.  Merge two array elements in zigzag manner
		int[] a= {10,30,50,70,90,1,6};
		int[] b= {20,40,60,80,100};
		int[] c=new int[a.length+b.length];
		int j=0;
		int k=0;
		int i=0;
		while(i<c.length) {
			if(j<a.length)
			{
				c[i]=a[j];
				i++;
				j++;
			}

			 if(k<b.length)
			{
				c[i++]=b[k];
				k++;
			}
		}

		for(int d=0;d<c.length;d++)
		{
			System.out.print(c[d]+" ");
		}
	}

}
```

O/P:- [10 20 30 40 50 60 70 80 90 100]

12.PRINT MULTIPLE OF 5 IN GIVEN ARRAY?

```
package Arrays21;

import java.util.Scanner;

public class Multi {

public static void main(String[] args) {
int[] a= {10,15,20,25,36,67};
     for(int i=0;i<a.length;i++)

     {

     if(a[i]%5==0)
```

```
        {
                System.out.println(a[i]+" Multiple by 5");
        }
       }
       }

}
```

O/P

```
10 Multiple by 5
15 Multiple by 5
20 Multiple by 5
25 Multiple by 5
```

13.PRINT A CHARACTER IN LAST AND FIRST CHARACTER ?

```
package AllArraysProgramms;

public class PrintCharFirstAndLast {

        public static void main(String[] args) {
   char[] ch={'Y','A','S','H'};
   System.out.println(ch[0]);
   System.out.println(ch[ch.length-1]);
        }

}
  }

}
```

O/P

First Index is Y.
Last ibdex is H

14.PRINT THE OCCURANCE OF 2ND INDEX IN GIVEN ARRAY?

```
package Arrays21;

import java.util.Scanner;
```

```
public class Occurance2nd {
public static void main(String[] args) {
Scanner scn=new Scanner(System.in);
System.out.println("Enter a number");
int n=scn.nextInt();
int count=0;
        int[] a= {10,20,30,40,50,30};
        int i=0;
        boolean flag=true;
        for(i=0;i<=a.length-1;i++) {
          if(a[i]==n)
        {
            count++;
        }
            if(count==2)
              {
              flag=false;
                break;
            }
             }
            if(flag==false)
        {
        System.out.println(i);
        }
}
}
```

O/P

Enter a number

30

5th Index Repeat 2nd time

15.FACTORIAL OF A GIVEN ARRAY?

```
package AllArraysProgramms;

public class FactorialOfArray {

	public static void main(String[] args) {
    int[] a= {1,2,3,4,5,6};
    int fact=1;
    for(int i=0;i<a.length;i++)
    {
	 fact*=a[i];
    }
    System.out.println(fact);
	}

}
```

O/P

FACTORIAL IS 720

16.Product of even index array elements

```
package AllArraysProgramms;
public class ProdEvenIndexElements {
		public static void main(String[] args) {
		int[] a= {1,2,3,4,5};
		int prod=1;
		for(int i=0;i<a.length;i++)
		{
			if(i%2==0)
			{
				prod*=a[i];
			}
		}
		System.out.println(prod);
	}
}
```

O/P

Answer ius 15

16. PRINT REVERSE AN ARRAY?

```
package Arrays21;
import java.util.Scanner;

public class ReverseofArray {

    public static void main(String[] args) {

        int j=0;

      Scanner scn=new Scanner(System.in);

            System.out.println("Enter a values");

            int[] a=new int[5];


          for(int i=0;i<a.length;i++)

        {

          a[i]=scn.nextInt();
}
for(int i=a.length-1;i>=0;i--)

{

System.out.println(a[i]);

}

 }

}
```

O/P

```
Enter a values
50
40
30
20
10
--------------------
10
```

20
30
40
50

17 .PRINT REVERSE AN ARRAY USING SWAPING?

```
public class ReversearraySwap {

public static void main(String[] args) {
    int[] a= {50,40,30,20,10};

            int st=0;

            int end=a.length-1;

            while(st<end)

            {

             int temp=a[st];

             a[st]=a[end];

             a[end]=temp;

             st++;

             end--;

            }
        System.out.println(Arrays.toString(a));

         }

}
```

O/P

Enter a numbers

50 40 30 20 10

10 20 30 40 50 -----→ Reverse an array

18.PRINT ALL SUM OF ODD NUMBERS GIVEN ARRAY?

```
package Arrays21;
```

```
public class Sumodd {
public static void main(String[] args) {
int sum=0;
int[] a= {1,3,5,6,7,8,9};
for(int i=0;i<=a.length-1;i++)
{
if(a[i]%2!=0)
{
sum=sum+a[i];
}
}
System.out.println(“sum of odd numbers ”+sum);
}
}
```

O/P

sum of odd numbers 25

19.PRINT GIVEN CHARACTER ARRAY IS PALLINDROME OR NOT ?

```
package Arrayrs23;
public class Charpalindrome {
    //character pallindrome
public static void main(String[] args) {
char[] a= {'M','A','L','A','Y','A','L','A','M'};
int i=0,j=a.length-1;
boolean flag=true;
while(i<j) {
```

```
if(a[i]!=a[j]) flag=false;
i++;
j--;
}
if(flag==false) System.out.println("not palindrome");
else System.out.println("Palindrome"); }

}
```

O/P

Given character is Pallindrome.

20.Print All the distinct Elements in given Two arrays Array (not common values Elements in Array)?

```
package Arrayrs23;
public class DistinctNotCommon {
public static void main(String[] args) {
int[] a1= {10,20,30,40,50,80};
int[] a2= {10,30,50,70};
for(int i=0;i<=a1.length-1;i++)
{
boolean flag=false;
for(int j=0;j<=a2.length-1;j++)
{
if(a1[i]==a2[j]
{
flag=true;
}
}
```

```
if(!flag)
{
System.out.println(a1[i]);
}
}
for(int i=0;i<=a2.length-1;i++)
{
boolean flag=false;
for(int j=0;j<=a1.length-1;j++)
{
if(a2[i]==a1[j])
{
flag=true;
}
}
```

o/p

```
20
40
80
70
```

21. Check and print the common elements present in between two array?

```
package AllArraysProgramms;
public class CommonElementsTwoArrays {
	public static void main(String[] args) {
	int[] a1= {10,20,30,40,50};
	int[] a2= {60,20,70,40,30};
	for(int i=0;i<a1.length;i++)
	{
		boolean flag=false;
		for(int j=0;j<a2.length;j++)
		{
			if(a1[i]==a2[j])
			{
				flag=true;
```

```
                }
            }
            if(flag==true)
            {
                System.out.println(a1[i]);
            }
    }
        }

}
```

O/P

```
20
30
40
```

22.Print highest sum two elements in given Array?

```
package Arrayrs23;
public class HighestSumElement {
        public static void main(String[] args) {
         int[] a = {6, 5, 4, 3, 2, 1, 8, 9, 10};
        int sum = a[0] + a[1];
                for (int i = 0; i < a.length; i++) {
                for (int j = i + 1; j < a.length; j++) {
                if (a[i] + a[j] >sum) sum = a[i] + a[j];
        }
   }
           System.out.println(sum);
        }
}
```

O/P

```
Highest sum is 19
```

23.Check the two Arrays identical or not(INDEX AND VALUES ARE SAME THAT IS IDENTICAL OTHER WISE NOT IDENTICAL).

```
package AllArraysProgramms;

public class IdenticalOrNot {

	public static void main(String[] args){
		int[] a= {10,20,30,40,50};
		int[] b= {10,20,30,40,50};
		if(a.length==b.length)
		{
			boolean flag=true;
			for(int i=0;i<a.length;i++)
			{

	if(a[i]==b[i])
    {
	flag=true;
	}
else
{
    flag=false;
    break;
   }
}
if(flag==true)
{
System.out.println("Identical");
}
else
{
System.out.println("Not Identical");
}
}
else
{
System.out.println("Not Identical");
		}
	}
}
```

O/P

The given arrays are **Identical**

24.FIND THE 3RD MAXIMUM NUMBER IN GIVEN ARRAY?

```
package Arrayrs23;
```

```
import java.util.Arrays;
public class max3rd {
        public static void sort(int[] a) {
            int[] a= {10,30,20,68,70,90};
          Arrays.sort(a);
    for(int n:a)
    {


    }
    System.out.println(a[a.length-3]);
    Another one way
      sort(a);
      System.out.println(a[a.length-3]);
     }

     private static void sort(int[] a) {

      for(int i=0;i<a.length;i++){

                for(int j=0;j<a.length-1-i;j++)
                {
                     if(a[j]>a[j+1])
                     {
                          int temp=a[j];
                          a[j]=a[j+1];
                          a[j+1]=temp;
                     }
                }
           }
     }
```

```
}
```

Another Way

```
package AllArraysProgramms;

import java.util.Arrays;

public class Find3RdHighestElements {

	public static void main(String[] args) {

		int[] a= {10,20,30,10,20,60,70,70,80,80};
		int max1=0;
		int max2=0;
		int max3=0;
		for(int i=0;i<a.length;i++)
		{
			if(a[i]>max1)
			{
				max3=max2;
				max2=max1;
				max1=a[i];
			}
			else if(a[i]>max2 && a[i]!=max1)
			{
				max3=max2;
				max2=a[i];
			}
			else if(a[i]>max3 && a[i]!=max1 && a[i]!=max3)
			{
				max3=a[i];
			}

		}
		System.out.println(max3+" min3 value ");
		System.out.println(max2+" min2 value");
		System.out.println(max1+" min1 value");
	}

}
```

O/P

```
60 min3 value
70 min2 value
80 min1 value
```

25.FIND 3RD MINIMUM NUMBER IN GIVEN ARRAY?

```
package Arrayrs23;

public class min3rd {

	public static void sort(int[] a) {
	     int[] a= {10,30,20,68,70,90};
	    Arrays.sort(a);

	   for(int n:a)
	   {


	    }
	  System.out.println(a[2]);  //this is one way
```

Another way

```
package AllArraysProgramms;

public class Find3rdMin {
//	27.  Find third smallest element in a n array
	public static void main(String[] args) {
		int[] a= {10,50,60,30,20,8};
		for(int i=0;i<a.length;i++)
		{
			for(int j=0;j<=a.length-1-i;i++)
			{
				if(a[j]<a[j+1])
				{
					int temp=a[j];
					a[j]=a[j+1];
					a[j+1]=temp;
				}
			}
		}
		System.out.println(a[a.length-2]);
	}


}
```

Another Way

```
package AllArraysProgramms;

public class Find3rdMin {
//	27.  Find third smallest element in a n array
	public static void main(String[] args) {
```

```
		int[] a= {10,20,30,40,30,50,50,40,30};
		int min1=Integer.MAX_VALUE;
		int min2=0;
		int min3=0;
		for(int i=0;i<a.length;i++)
		{
			if(a[i]<min1)
			{
				min3=min2;
				min2=min1;
				min1=a[i];
			}
			else if(a[i]<min2 && a[i]!=min1)
			{
				min3=min2;
				min2=a[i];
			}
			else if(a[i]<min3 && a[i]!=min1 && a[i]!=min2)
			{
				min3=a[i];
			}
		}
		System.out.println(min3+" min3 value");
		System.out.println(min2+" min2 value");
		System.out.println(min1+" min1 value");
	}
}
```

O/P

```
30 min3 value
20 min2 value
10 min1 value
```

26. Print All Paires of two elements is having sum is 10?

```
package AllArraysProgramms;

public class PairesOfSum {
	public static void main(String[] args) {
    int[] a= {7,1,3,2,5,6,5,4};
    for(int i=0;i<a.length;i++)
    {
		for(int j=i+1;j<a.length;j++)
		{
```

```
                if(a[i]+a[j]==10)
                {
                        System.out.println(a[i]+"+"+a[j]+"="+"10");
                }
        }
    }
        }

}
```

O/p

```
7+3=10
5+5=10
6+4=10
```

27.Check the Array is Pallindrome or not?

```
package Arrayrs23;
import java.util.Scanner;
public class Palindromenum {
        public static void main(String[] args)
    { Scanner scn=new Scanner(System.in);
    System.out.println("Enter a size"); int
    size=scn.nextInt();
    int [] a=new int[3];
    System.out.println("Enter the array elements");
    for(int i=0;i<size;i++)
    {
        a[i]=scn.nextInt();
    }
    for(int i=0;i<size;i++)
    {
        int n=a[i];
        int copy=n;
        int rev=0;
```

```
        while(n>0)
        {
                rev=rev*10+n%10;
                n/=10;
        }
        if(copy==rev)
        {
                System.out.println(copy+"is a pallindrome");
        }
        else
        {
               System.out.println(copy+"is not pallindrome");
        }
    }
        }
}
```

O/P

```
Enter a size
3
Enter the array elements
121
123
124
121is a pallindrome
123is not pallindrome
124is not pallindrome
```

28.PRINT COMMON ELEMENTS OF TWO ARRAYS?

```
package Arrayrs23;
```

```
public class Samedata {
public static void main(String[] args) {
      int[] a1= {10,20,30,40,50};
      int[] a2= {10,30,50,70};
      for(int i=0;i<=a1.length-1;i++)
      {
      for(int j=0;j<=a2.length-1;j++)
     {
      if(a1[i]==a2[j])
     {
     System.out.println("the common elements "+a1[i]);
      }
    }
      }
}
}
```

O/P

```
the common elements 10
the common elements 30
the common elements 50
```

29.Print 2nd maximum number given Array?

```
package Arrayrs23;
public class Secondmax {
public static void main(String[] args) {
    int[] a= {10,100,90,54,67};
    int s1=a[0];
    int s2=a[0];
    for(int i=1;i<a.length;i++)
```

```
    {
    if(a[i]>s1)
    {
    s2=s1;
    s1=a[i];
    }
    else if(a[i]>s2 || s1==s2)
    {
    s2=a[i];
    }
    }
    System.out.println(s2);
    }
}
```

O/P

2ND MAXIMUM NUMBER IS 90

30.Print The 2nd Minimum Number in Given Array?

```
package Arrayrs23;
public class Secondmin {
public static void main(String[] args) {
int[] a= {10,100,90,54,67};
int s1=a[0];
int s2=a[0];
for(int i=1;i<a.length;i++)
{
if(a[i]<s1)
{
```

```
s2=s1;
s1=a[i];
}
else if(a[i]<s2 || s1==s2)
{
s2=a[i];
}
}
System.out.println(s2);
}
}
```

O/P

2nd minimum is 57

31.WAJP TO REMOVE A PARTICULAR ELEMENT IN ARRAY?

```
package ArraysProgramm;

import java.util.Arrays;

public class RemoveElement {

     public static void main(String[] args)
      { int[] a= {10,20,30,40,50};
      int[] b=new int[a.length-1];
      int ind=2;
      int k=0;
      for(int i=0;i<a.length;i++)
```

```
        {
        if(i==ind)
        {
             continue;
        }
        b[k++]=a[i];

        }
        System.out.println(Arrays.toString(b));
       }

}
```

O/P

```
[10, 20, 40, 50]
```

32.REMOVE DUPLICATES IN AN ARRAY?

```
package Paterns;

public class Remove {
        public static void main(String[] args) {
                int[] a= {1,2,3,1,2,1,3,1,2,2};
                for(int i=0;i<a.length;i++)

                {

                        for(int j=i+1;j<a.length;j++)

                        {

                                if(a[i]==a[j])

                                {

                                        a[j]=Integer.MAX_VALUE;



                                }

                        }
```

```
                }
                for(int i=0;i<a.length;i++)
                {
                        if(a[i]!=Integer.MAX_VALUE) {
                                System.out.println(a[i]);
                        }

                }
        }
}
```

33. FIND DUPLICATES IN ARRAY?

```
package ArraysProgramm;

import java.util.HashSet;
import java.util.Set;

public class FetchDuplicate {
```

```
        public static void main(String[] args) {
    int[] a= {1,2,3,1,2,4,5,3};
        Set s=new HashSet();
    for(int n:a)
    {
        if(s.contains(n)==false) {
        s.add(n);
        }
        else
        {
                    System.out.println(n); //Find duplicates
        }
    }
    System.out.println(s); //remove duplicates


        }


}
```

34. WAJP Linear Search?

```
package AllArraysProgramms;

public class LinearSearch {

        public static void main(String[] args) {
                int[] a= {50,40,30,20,10};
                int search=30;
                for(int i=0;i<a.length;i++)
                {
                        if(search==a[i])
                        {
                                System.out.println(search+" Present in array");
                        }
                }
        }

}
```

O/p

```
30 Present in array
```

35. WAJP Binary Search?

```
package AllArraysProgramms;

import java.util.Arrays;
import java.util.Scanner;

public class BinarySearch {

	public static void main(String[] args) {
		Scanner scn=new Scanner(System.in);
		System.out.println("Enter a Key");
		int key=scn.nextInt();
		int [] a= {10,30,40,50,60,20};
		Arrays.sort(a);
		int low=0,high=a.length-1;
		boolean flag=false;
		while(low<=high) {
			int mid=(low+high)/2;
			if(key==a[mid])
			{
				flag=true;
				break;
				}
			else if(key>a[mid])
			{
				low=mid+1;
				high=high; }
			else
			{
				high=mid-1;
				low=low; }}
		if(flag==true) {
			System.out.println("Key is Present at Index");
		}
		else
		{
			System.out.println("Key is Not Present at Index");
		}
		}
	}
```

O/p

```
Enter a Key
20
Key is Present at Index
```

36. WAJP Copy One Array To Another Array?

```
package AllArraysProgramms;

import java.util.Arrays;

public class CopyOneArrayToAnotherArray {

	public static void main(String[] args) {
    int[] a= {10,20,30,40,50};
    int[] b=new int[a.length];
    for(int i=0;i<a.length;i++)
    {
	 b[i]=a[i];
    }
    System.out.println(Arrays.toString(b));
	}

}
```

O/p

```
[10, 20, 30, 40, 50]
```

37. WAJP Count Duplicates?

```
package AllArraysProgramms;

import java.util.Arrays;

public class CountDuplicates {

	public static void main(String[] args) {

C
```

O/p

```
3
```

38. WAJP Insert an Element Particular Index?

```
package AllArraysProgramms;

import java.util.Arrays;

public class InsertAnElemet {
```

```
        public static void main(String[] args) {
    int[] a= {10,20,40,50};
    int[] b=new int[a.length+1];
    int ind=2;
    int num=30;
    int j=0;
    for(int i=0;i<a.length;i++)
    {
        if(ind==i)
        {
                b[j]=num;
                j++;
        }
                b[j]=a[i];
                j++;
    }
//    System.out.println(Arrays.toString(b));
    for(int i=0;i<b.length;i++)
    {
        System.out.println(b[i]);

    }
       }
}
```

O/p

```
[10, 20, 100, 30, 40, 50]
```

39. WAJP Print Even Array Elements?

```
package AllArraysProgramms;

public class PrintEvenArrayElements {

        public static void main(String[] args) {
                //15.  Print only even array elements
                int[] a= {10,20,36,37,49};
                for(int i=0;i<a.length;i++)
                {
                        if(a[i]%2==0)
                        {
                                System.out.println(a[i]);
```

```
                }
            }
        }

}
```

O/p

```
10
20
36
```

40. WAJP Print Only Odd Array Elements?

```
package AllArraysProgramms;

public class PrintOnlyOddArrayElemets {

        public static void main(String[] args) {
//              16.   Print only odd array elements
                int[] a= {10,20,36,37,49};
                for(int i=0;i<a.length;i++)
                {
                        if(a[i]%2!=0)
                        {
                                System.out.println(a[i]);
                        }
                }
        }

}
```

O/p

```
37
49
```

41.WAJP Print Only Prime Array Element?

```
package AllArraysProgramms;

public class PrintOnlyPrimeElements {

        public static void main(String[] args) {
//              34.  Print only the prime array elements
                int[] a= {2,4,3,6,5,7,9};
                for(int i=0;i<a.length;i++)
                {
                        int count=0;
                for(int j=1;j<=a[i];j++)
                {
```

```
                        if(a[i]%j==0)
                        {
                                count++;
                        }
                }
                if(count==2)
                {
                        System.out.println(a[i]);
                }
        }

        }
}
```

O/p

2
3
5
7

42.WAJP Print Second Time Element Given Array?

```
package AllArraysProgramms;
import java.util.Scanner;
public class SecondTimeRepeat {
        public static void main(String[] args) {
//              28.  Find multiples of a element present in array
                Scanner scn=new Scanner(System.in);
                System.out.println("Enter a Number");
                int n=scn.nextInt();
                int[] a= {10,30,40,20,20};
                int count=0;
                for(int i=0;i<a.length;i++)
                {
                        if(n==a[i])
                        {
                                count++;
                        }
                }
                if(count==2)
                {
                        System.out.println(n+" is Present in Multiple Times");
                }
                else
                {
                        System.out.println(n+" Not Present Multiple Times");
                }
                }
        }
```

O/p

```
Enter a Number
20
20 is Present in Multiple Times
```

43. WAJP To Bubble Sort?

```
package AllArraysProgramms;

import java.util.Arrays;

public class BubbleSort {

	public static void main(String[] args) {
		int[] a= {50,30,40,20,10};
		for(int i=0;i<a.length;i++)
		{
			for(int j=0;j<a.length-1-i;j++)
			{
				if(a[j]>a[j+1])
				{
					int temp=a[j];
					a[j]=a[j+1];
					a[j+1]=temp;

				}
			}
		}
			System.out.println(Arrays.toString(a));
	}

}
```

O/p

```
[10, 20, 30, 40, 50]
```

44. WAJP To Selection Sort?

```
package AllArraysProgramms;

import java.util.Arrays;

public class SelectionSort {

	public static void main(String[] args) {
		int[] a= {50,40,30,20,10};
		for(int i=0;i<a.length;i++)
		{
```

```
                    int ind=i;
                    for(int j=i+1;j<a.length;j++)
                    {
          if(a[j]<a[ind])
                    {
                    ind=j;
                    }

          if(a[i]!=ind)
          {
                    int temp=a[i];
                    a[i]=a[ind];
                    a[ind]=temp;
          }
                    }
                }
                System.out.println(Arrays.toString(a));
        }

}
```

O/p

```
[10, 20, 30, 40, 50]
```

45. WAJP Sort an Array WithOut Temp?

```
package AllArraysProgramms;

import java.util.Arrays;

public class SortingArrayWithOutTemp {

        public static void main(String[] args) {
    int[] a= {50,40,30,20,10};
    for(int i=0;i<a.length;i++)
    {
         for(int j=0;j<a.length-1-i;j++)
         {
                  if(a[j]>a[j+1])
                  {
                           a[j]=a[j]+a[j+1];
                           a[j+1]=a[j]-a[j+1];
                           a[j]=a[j]-a[j+1];
                  }
         }
    }
    System.out.println(Arrays.toString(a));
        }

}
```

O/p

```
[10, 20, 30, 40, 50]
```

46. WAJP TO BY AND SALE ?

```
package ArraysProgramm;

public class ByyAndSale {

	public static void main(String[] args) {
    int[] a= {5,3,6,100};
    int min=Integer.MAX_VALUE;
    System.out.println(min);
    int max=0;
    for(int i=0;i<a.length;i++)
    {
         if(a[i]<min) min=a[i];   //5/3
         if(a[i]-min>max) max=a[i]-min;  //3//97
    }
    System.out.println("max value is "+max);
        }

}
```

O/p

```
2147483647
max value is 97
```

47. WAJP TO Print array Elements First 0's and next 1's?

```
package ArraysProgramm;

import java.util.Arrays;

public class First0S {
public static void main(String[] args) {
        int[] a= {1,0,0,1,0,0,1,1,0};
        int[] b=new int[a.length];
//      Arrays.sort(a);     this is 1 way
//      for(int n:a) {
//      System.out.print(n+" ");
        int j=0;
        for(int i=0;i<a.length;i++)
        {
                if(a[i]==0)
                {
                        b[j]=a[i];
                        j++;
                }
        }
        for(int i=0;i<a.length;i++)
        {
```

```
                if(a[i]!=0)
                {
                        b[j]=a[i];
                        j++;
                }
        }
        for(int n:b)
        {
                System.out.print(n);
        }
}
}
```

O/p

```
000001111
```

48. WAJP To Left Rotation of an Array?

```
package ArraysProgramm;

public class LeftRotation {
        public static void main(String[] args) {
                int[] a= {10,20,50,40,30};
                int[] b=new int[a.length];
                int n=2;
                int j=0;
                for(int i=n;i<a.length;i++)
                {
                        b[j]=a[i];
                        j++;
                }
                for(int i=0;i<n;i++)
                {
                        b[j]=a[i];
                        j++;
                }
                for(int c:b)
                {
                        System.out.print(c+" ");
                }
        }
}
```

O/p

```
50 40 30 10 20
```

49.WAJP To Left Rotate an Element in the Given array?

```
package ArraysProgramm;
```

```
public class RotateElements {

	public static void main(String[] args) {
    int[] a= {10,20,40,70};
    int temp=a[0];

    for(int i=1;i<a.length;i++)
    {
		a[i-1]=a[i];
    }
    a[a.length-1]=temp;
    for(int n:a)
    {
		System.out.println(n);
    }
		}

}
```

O/p

```
20
40
70
10
```

49. WAJP To Print SubArray ?

```
package ArraysProgramm;

public class SubArray {

	public static void main(String[] args) {
     int[] a= {1,2,3,4};
     for(int i=0;i<a.length;i++)
     {
		for(int j=0;j<a.length-i;j++)
		{
			for(int k=i;k<=i+j;k++)
			{
				System.out.print(a[k]);
			}
			System.out.println();
		}
     }
	}

}
```

O/p

```
1
12
123
1234
2
23
234
3
34
4
```

50.Print Only Prime Array Elements?

```
package AllArraysProgramms;

public class PrintOnlyPrimeElements {

	public static void main(String[] args)
		int[] a= {2,4,3,6,5,7,9};
		for(int i=0;i<a.length;i++)
		{
			int count=0;
		for(int j=1;j<=a[i];j++)
		{
			if(a[i]%j==0)
			{
				count++;
			}
		}
		if(count==2)
		{
			System.out.println(a[i]);
		}
	}

	}
}
```

51. WAJP To Find Missing Elements in Array?

```
package Programms;

public class Missing_Elements_an_Array {
   public static void main(String[] args) {
		int[] a = {1,4,9};
		int i=1;
		int j=0;
		do
		{
```

```
                    if(i==a[j])
                    {
                            i++;
                            j++;
                    }
                    while(i<a[j])
                    {
                            System.out.println(i);
                            i++;
                    }
            }
            while(j<a.length-1);
    }
}
```

O/p

```
2
3
5
6
7
8
```

52. Java Program to find next greater element in array in java?

```
package Programms;

public class NextGreaterNumber {

    public static void main(String[] args) {
        int[] a= {11,21,13,10,15,30,16};
        for(int i=0;i<a.length;i++)
        {
            int next=-1;
            for(int j=i+1;j<a.length;j++)
            {
                if(a[i]<a[j]) {
                    next=a[j];
                    break;
                }
            }
            System.out.println(a[i]+" ,"+next);
        }
    }

}
```

O/p

11 ,21
21 ,30
13 ,15
10 ,15
15 ,30
30 ,-1
16 ,-1

53.WAJP To Sorted names in array.

```
package Programms;

import java.util.Scanner;

public class SortNamesInArray {
	public static void main(String[] args) {
    Scanner scn=new Scanner(System.in);
    System.out.println("Enter a Size of names");
     int size=scn.nextInt();
    String[] n=new String[size];
    System.out.println("Enter a Names");
    String temp;
    for(int i=0;i<size;i++)
    {
	n[i]=scn.next();
    }
    for(int i=0;i<size;i++)
    {
	for(int j=i+1;j<size;j++)
	{
		if(n[i].compareTo(n[j])>0)
		{
		 temp=n[i];
		n[i]=n[j];
		n[j]=temp;

		}
	}
    }
    for(String name:n)
    {
	System.out.println("Sorted names ="+ name);
    }
	}

}
```

O/P

```
Enter a Size of names
3
Enter a Names
XYZ
PQR
ABC
Sorted names =ABC
Sorted names =PQR
Sorted names =XYZ
```

54. Java Program to square a sorted array of Positive and Negative Numbers

```
package Programms;

public class SquareSorted {

	public static void main(String[] args) {
  //Java Program to square a sorted array of Positive and Negative Numbers
		int[] a= {-6,-1,2,4,5};
		int sq[] = squareSorted(a);
		for(int i=0;i<sq.length;i++)
		{
			System.out.println(sq[i]);
		}
	}

	private static int[] squareSorted(int[] a) {
		int sq[]=new int[a.length];
		int start=0;
		int end=a.length-1;
		int sqIndex=a.length-1;
		while(start<=end)
		{
			if(a[start]*a[start]>a[end]*a[end])
			{
				sq[sqIndex--]=a[start]*a[start];
				start++;
			}
			else
			{
				sq[sqIndex--]=a[end]*a[end];
				end--;
			}
		}
		return sq;
```

```
	}

}
```

O/P

```
1
4
16
25
36
```

55.Java Program to move all negative numbers to the start of array and positive numbers to end?

```
package Programms;

public class StartNegitive28 {

	public static void main(String[] args) {
		int a[]= {-1,20,30,-3,40,-9};
		int b[]=new int[a.length];
		rearrange(a,b);
		print(b);

	}

	private static void print(int[] b) {
		for(int i:b)
		{
			System.out.print(i);
			System.out.print(" ");
		}
	}

	private static void rearrange(int[] a, int[] b) {
		 int j=0;
		 for(int i=0;i<a.length;i++)
		 {
			 if(a[i]<0)
			 {
				 b[j]=a[i];
				 j++;
			 }
		 }
		 for(int i=0;i<a.length;i++)
		 {
```

```
                    if(a[i]>0)
                    {
                        b[j]=a[i];
                        j++;
                    }
                }
//              print(b);
        }

}
```

O/P

```
-1 -3 -9 20 30 40
```

56. Different ways to sum all elements in an array in java8

```
package Programms;

import java.util.Arrays;
import java.util.stream.IntStream;

public class SumDifferentWays {

     public static void main(String[] args) {
          int[] a= {10,20,30,40,50};
          int sum=Arrays.stream(a).sum();
          System.out.println(sum);

          System.out.println("--------------");

          int sum1=IntStream.of(a).sum();
          System.out.println(sum1);
          System.out.println("--------------");

          int sum2=Arrays.stream(a).reduce((x,y)-
>x+y).getAsInt();
          System.out.println(sum2);
          System.out.println("--------------");

          int
sum3=Arrays.stream(a).reduce(Integer::sum).getAsInt();
          System.out.println(sum3);
          System.out.println("--------------");

          long
sum4=Arrays.stream(a).summaryStatistics().getSum();
          System.out.println(sum4);
     }
```

}

O/P

```
150
--------------
150
--------------
150
--------------
150
--------------
150
```

57.

to find the first duplicate occurence in an array.

```
package Programms;

public class FirstDuplicateOccurance {
        public static void main(String[] args)
{
        Integer[] a= {1,2,3,4,1,2,7};
        for(int i=0;i<a.length;i++)
        {
            for(int j=i+1;j<a.length;j++)
            {
                if(a[i]==a[j])
                {
                    System.out.println(a[i]);
                    return;
                }
            }
        }
    }

}
```

58.WAJP To Find Majarity of Elements in array.

```
          package Programms;

     import java.util.HashMap;
     import java.util.Map;
     public class MajarityElements {

          public static void main(String[] args) {
           int[] a= {1,2,3,4,5,2,3,3,3,3,3};
           System.out.println("Majarity Element is =
"+majarity(a,11));
          }
           static int majarity(int[] a,int size)
          {
               Map<Integer,Integer> map=new
HashMap<Integer,Integer>();
               for(int i:a)
               {
                    Integer val=map.get(i);
                    if(val==null)
                    {
                         map.put(i,1);

                    }
                    else
                    {
                         map.put(i, val+1);
                    }
               }
               for(Map.Entry<Integer,Integer>
entry:map.entrySet())
               {
                    if(entry.getValue()>size/2)
                    {
                         return entry.getKey();
                    }

               }
               return -1;

          }


     }
```

O/P

Majarity Element is = 3

59. Find common elements in 3 Arrays?

```
package ArraysNewProgramms;

public class Find_Common_Elemets_3Arrays {

	public static void main(String[] args) {
		int[] a= {10,20,30,40,50};
	   int[] b= {10,20,30,40,60,50};
	   int[] c= {10,20,30,70,50};
	   for(int i=0;i<a.length;i++)
	   {
		for(int j=0;j<b.length;j++)
		{
			for(int k=0;k<c.length;k++)
			{
				if(a[i]==b[j] && b[j]==c[k] && a[i]==c[k])
				{
					System.out.println(a[i]);
				}
			}
		}
	   }
	}
}
```

60.Find Longest Sub Array

```
package ArraysNewProgramms;

public class Longest_Sub_Array {
   public static void main(String[] args) {
	  int[] a= {10,20,1,20,5,4,7,8,19,11};
	    int len=findlength(a);
	    System.out.println(len);
		}

		private static int findlength(int[] a) {
			if(a.length==0) {
			return 0;
			}
			int len=1;
			int maxLen=1;
			for(int i=1;i<a.length;i++)
			{
				if(a[i]>a[i-1])
				{
					len++;
				}
				else
				{
```

```
                    len=1;
                }
                maxLen=Math.max(len, maxLen);
            }
            return maxLen;
        }
}
```

O/p

4

61. Maximum Consecutive Ones in an Array of 0s and 1s

```
package ArraysNewProgramms;

public class MaxConsigativeOnes {

    public static void main(String[] args) {
        int[] a= {1,1,0,0,1,1,1,1,1,0};
        System.out.println(countConsecutiveOnes(a));
    }
    public static int countConsecutiveOnes(int[] a) {
        int count=0;
        int maxConsecutiveOne=0;
        for(int i=0;i<a.length;i++)
        {
            if(a[i]==1) {
                count++;
                maxConsecutiveOne=Math.max(count, maxConsecutiveOne);

            }
            else
            {
                count=0;
            }
        }
        return maxConsecutiveOne;
    }

}
```

61.WAJP ToFind Maiximum and Minimum between Differnce?

```
package ArraysNewProgramms;

public class Max_Differnce {

    public static void main(String[] args) {
        int[] a= {10,60,30,20};
        int min=a[0];
        int max=a[0];
        for(int i=0;i<a.length;i++)
```

```
		{
			if(a[i]<min)
				{
				min=a[i];
				}
			if(a[i]>max)
			{
				max=a[i];
			}
		}
		System.out.println(min);
		System.out.println(max);
		System.out.println("max difference is "+ (max-min));
	}

}
```

62.Find Maximum Sub Array?

```
package ArraysNewProgramms;

public class Max_Sub_Array {

	public static void main(String[] args) {
		int[] a= {1,2,-5,4,3,8,5};
	    int maxSum=a[0];
	    int sum =a[0];
	    for(int i=0;i<a.length;i++)
	    {
		 if(sum<0)
		 {
			sum=a[i];
		 }
		 else
		 {
			sum=sum+a[i];
		 }
		 maxSum=Math.max(sum, maxSum);
	    }
	    System.out.println(maxSum);
	}

}
```

O/p

20

63.Product of an array Except It Self?

```
package ArraysNewProgramms;

import java.util.Arrays;
```

```
public class ProductOfAnArrayExceptItSelf {

	public static void main(String[] args) {
	int[] a= {4,2,1,7};
	int prod=1;
	int[] arr=new int[a.length];
	for(int i=0;i<a.length;i++)
	{
		prod*=a[i];
	}
	for(int i=0;i<a.length;i++) {
		arr[i]=prod/a[i];
	}
	System.out.println(Arrays.toString(arr));

	}

}
```

O/p

```
[14, 28, 56, 8]
```

64. Wajp Reverse GroupOfArrays?

```
package ArraysNewProgramms;

import java.util.Arrays;

public class ReverseGroupOfArrays {

	public static void main(String[] args) {
	int[] a= {1,2,3,4,5,6,7,8,9};
	int k=5;
	for(int i=0;i<a.length;i=i+k) {
		int start=i;
		int end=Math.min(i+k-1, a.length-1);
		while(start<=end) {
			int temp=a[start];
			a[start]=a[end];
			a[end]=temp;
			start++;
			end--;
		}
	}
	for(int n:a) {
		System.out.print(n+" ");

	}
	}
}
```

O/p

5 4 3 2 1 9 8 7 6

65. Wajp Search Sorted and Rotaed array?

```
package ArraysNewProgramms;

import java.util.Arrays;

public class SearchSortedAndRotatedArray {

	public static void main(String[] args) {
		int[] a= {40,50,10,20,30,77,8,9,0};
	    int[] b=new int[a.length];
	    int n=4;
	    int target=0;
	    int j=0;
	    for(int i=a.length-n;i<a.length;i++)
	    {
		b[j]=a[i];
		j++;

	    }
	    for(int i=0;i<a.length-n;i++)
	    {
		b[j]=a[i];
		j++;

	    }
//	    System.out.println(Arrays.toString(a));
	    for(int i=0;i<b.length;i++) {

		System.out.println(b[i]+" ");
		if(a[i]==target)
			{
			System.out.println("Target Present");
			}
	    }
		}

	}
```

O/p

77
8
9
0
40
50

```
10
20
30
Target Present
```

66. Find TripLet?

```
package ArraysNewProgramms;

public class TripLetGivenSumisEqualToKnew {

	public static void main(String[] args) {
    int[] a= {1,2,3,4,6,8,7,9};
    int n=13;
    boolean result=findTriplet(a,n);
    if(result) {
	 System.out.println("Exists");
    }
    else
    {
	 System.out.println("Not Exists");
    }
	}
	public static boolean findTriplet(int[] a,int n) {
   for(int i=0;i<a.length;i++)
   {
	for(int j=i+1;j<a.length;j++)
	{
		for(int k=j+1;j<a.length;j++)
		{
			if(a[i]+a[j]+a[k]==n)
			{
				return true;
		}
	}
   }
	}
	return false;

}
}
```

O/p

```
Exists
```

67. Find TripLetZeroSum?

```
package ArraysNewProgramms;

import java.util.ArrayList;
```

```
import java.util.Arrays;
import java.util.List;

public class TripLetZeroSum {

	public static void main(String[] args) {
			int[] a= {-1,0,1,2,-1,-4};
			List<List<Integer>> result=threeSum(a);
			result.forEach(values->{
				System.out.println(values);
			});
		}
		public static List<List<Integer>> threeSum(int[] a){
			List<List<Integer>> result=new ArrayList<>();
			Arrays.sort(a);
			for(int i=0;i<a.length;i++)
			{
				int start=i+1;
				int end=a.length-1;

				if(i>0 && a[i]==a[i-1])
				{
					continue;
				}
				while(start<end)
				{
					if(end<a.length-1 && a[end]==a[end+1])
					{
						end--;
						continue;
					}
					if(a[i]+a[start]+a[end]==0) {
						List<Integer>
val=Arrays.asList(a[i],a[start],a[end]);
						result.add(val);
						start++;
						end--;
					}
					else if(a[i]+a[start]+a[end]<0) {
						start++;
					}
					else
					{
						end--;
					}
				}
			}
			return result;
		}
```

```
    }
```

O/p

```
[-1, -1, 2]
[-1, 0, 1]
```

68.WAJP To Insertion Sort?

```
package com.jsp.Insertion;

import java.util.Arrays;

public class InsertionSort {
     public static void main(String[] args) {
       int [] a= {5,6,7,8,3,2,1};
       sort(a);
       for(int n:a)System.out.print(n+" ");
       System.out.println();
     }
       public static void sort(int [] a)
       {
          for(int i=1;i<a.length;i++)
          {
           int key=a[i];
           int j=i-1;
           while(j>-1 && a[j]>key)
           {
                a[j+1]=a[j];
                j--;
           }
           a[j+1]=key;
          }


       }
     }
```

69. WAJP TO Insert an Element at particular index?

```
package Arrayrs23;

import java.util.Arrays;

public class InsertIndex_An_Element {

     public static void main(String[] args) {
          int[] n= {1,2,3,5,6};
           int[] n1=new int[n.length+1];
```

```
            int ind=3;
            int j=0;
            int num=4;
            for(int i=0;i<=n.length-1;i++)
            {
           if(ind==i)
           {
             n1[j]=num;
                j++;

           }
             n1[j]=n[i];
             j++;
            }
//          for(int i=0;i<=n1.length-1;i++)
//          {
//           System.out.println(n1[i]);
//          }
//          System.out.println(Arrays.toString(n1));
            System.out.println(Arrays.toString(n1));
            }

     }
```

70.WAJP To Check Monotanic Array or Not?

```
 package AllArraysProgramms;

public class Monotanic_Array {

     static boolean check(int arr[])
       {
         boolean inc = true;
         boolean dec = true;

         // Loop to check if array is increasing
         for (int i = 0; i < arr.length - 1; i++) {

           // To check if
           // array is not increasing
           if (arr[i] > arr[i + 1]) {
             inc = false;
           }
         }

         // Loop to check if array is decreasing
         for (int i = 0; i < arr.length - 1; i++) {

           // To check if
```

```
            // array is not decreasing
            if (arr[i] < arr[i + 1]) {
              dec = false;
            }
          }

          // Pick one whether inc or dec
          return inc || dec;
        }

        // Driver code
        public static void main (String[] args) {
          int arr[] = { 1, 2, 3, 3 };

          // Function call
          boolean ans = check(arr);
          if (ans == true)
            System.out.print("Monotanic Array...");
          else
            System.out.print("Not a Monotanic Array...");
        }
      }
```

o/p

Monotanic Array...

71.WAJP To print subarray k sum?

```
package Programms;

public class Sub_Array_K_Sum {

	public static void main(String[] args) {
	   int[] a = {1,2,1,4};
	   int k =4;
	   for(int i=0;i<a.length;i++)
	   {
	     int sum = 0;
	     for(int j = i;j<a.length;j++)
	     {
	          sum+=a[j];
	          if(sum == k)
	          {
	               System.out.println(i+" "+j);
	               break;
	          }
	          if(sum>k) {
```

```
                    break;
                }

            }
        }
    }

}
```

72.WAJP To Left Rotate an element?

```
package AllArraysProgramms;

import java.util.Arrays;

public class LeftRoation {

    public static void main(String[] args) {
        int[] a = {10,20,30,40};
        int temp = a[0];
        int i;
        for( i=1;i<a.length;i++)
        {
          a[i-1] = a[i];
        }
        a[a.length-1]=temp;
        System.out.println(Arrays.toString(a));
    }

}
```

O/P

```
[20, 30, 40, 10]
```

73.WAJP To Left Nth Rotate an element?

```
package AllArraysProgramms;

import java.util.Arrays;

public class LeftNthRotation {

    public static void main(String[] args) {
      int[] a = {10,20,30,40,50};
      int[] b = new int[a.length];
      int k = 2;
      int j=0;
      for(int i = k;i<a.length;i++)
      {
```

```
         b[j] = a[i];
         j++;
        }
        for(int i=0;i<k;i++)
        {
         b[j] = a[i];
         j++;
        }
        System.out.println(Arrays.toString(b));
      }

}
```

O/P

```
[30, 40, 50, 10, 20]
```

74.WAJP To Right Rotate an element?

```
package AllArraysProgramms;

import java.util.Arrays;

public class RightRotation {

      public static void main(String[] args) {
       int[] a = {10,20,30,40,50};

       int temp = a[a.length-1];

       for(int i=a.length-2;i>=0;i--)
       {
        a[i+1] = a[i];
       }
       a[0] = temp;
       System.out.println(Arrays.toString(a));
      }

}
```

O/P

```
[50, 10, 20, 30, 40]
```

75.WAJP To Right Nth Rotate an element?

```
package AllArraysProgramms;

import java.util.Arrays;

public class RightNthRotation {
```

```
    public static void main(String[] args) {
     int[] a = {10,20,30,40,50};
     int[] b = new int[a.length];
     int k = 3;
     int j=0;
     for(int i=k;i<a.length;i++)
     {
      b[j] = a[i];
      j++;
     }
     for(int i=0;i<k;i++)
     {
      b[j] = a[i];
      j++;
     }
     System.out.println(Arrays.toString(b));
    }

}
```

O/P

```
[40, 50, 10, 20, 30]
```