

```
import java.util.Scanner;
import static java.lang.Math.sqrt;
class Quadratic{
public static void main(String[] args){
double a,b,c,D,r1,r2,real,imaginery;
Scanner R = new Scanner(System.in);
System.out.println("Enter the coefficient");
a = R.nextDouble();
b = R.nextDouble();
c = R.nextDouble();
D = (b*b)-(4*a*c);
if(D==0)
{
r1=r2=-b/(2*a);
System.out.println(" Roots are eququal");
System.out.println("Roots are = " +r1+ "and " +r2);
}else if(D>0)
{ System.out.println(" roots are different");
r1= (-b+sqrt(D))/(2*a);
r2 =(-b-sqrt(D))/(2*a);
System.out.println("Roots are = " +r1+ " and " +r2);
}else
{
System.out.println(" There are no real solutions");
real = -b/(2*a);
imaginery = sqrt(-D)/(2*a);
System.out.println("real and imaginary Roots are = " +real+ " and " +imaginery);
}
}
}
```



Administrator: Command Prompt

Microsoft Windows [Version 10.0.18362.836]  
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C:\Windows\system32>cd C:\Program Files\Java\jdk1.8.0\_261\bin

C:\Program Files\Java\jdk1.8.0\_261\bin>javac Quadratic.java

C:\Program Files\Java\jdk1.8.0\_261\bin>java Quadratic

Enter the coefficient

1

4

4

Roots are = -2.0 and -2.0

C:\Program Files\Java\jdk1.8.0\_261\bin>javac Quadratic.java

C:\Program Files\Java\jdk1.8.0\_261\bin>java Quadratic

Enter the coefficient

1

-3

-10

Roots are = 5.0 and -2.0

C:\Program Files\Java\jdk1.8.0\_261\bin>javac Quadratic.java

C:\Program Files\Java\jdk1.8.0\_261\bin>java Quadratic

Enter the coefficient

1

1

1

There are no real solutions

real and imaginary Roots are = -0.5 and 0.8660254037844386

C:\Program Files\Java\jdk1.8.0\_261\bin>

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ENG 10:26 AM  
IN 9/29/2020



```
import java.util.Scanner;
import static java.lang.Math.sqrt;
class Natural{
    public static void main(String args[])
    {
        int a[];
        int i, positive=0,negative=0,zero=0;
        Scanner N = new Scanner(System.in);
        System.out.println("Enter the sizeof elements -");
        int n = N.nextInt();
        a = new int[n];
        for( i=0;i<n;i++)
        {
            System.out.println("Enter a["+i+"]");
            a[i] = N.nextInt();
        }
        for( i=0;i<n;i++)
        {
            if(a[i]>0)
            {
                positive++;
            }
            else if(a[i]<0)
            {
                negative++;
            }
            else
            {
                zero++;
            }
        }
        System.out.println("the number of positive integers are : "+positive);
        System.out.println("the number of negative integers are : "+negative);
        System.out.println("the number of zero integers are : "+zero);
    }
}
```



C:\Program Files\Java\jdk1.8.0\_261\bin>java Natural

Enter the sizeof elements -

10

Enter a[0]

8

Enter a[1]

0

Enter a[2]

9

Enter a[3]

-8

Enter a[4]

-6

Enter a[5]

0

Enter a[6]

9

Enter a[7]

6

Enter a[8]

5

Enter a[9]

0

the number of positive integers are : 5

the number of negative integers are : 2

the number of zero integers are : 3

C:\Program Files\Java\jdk1.8.0\_261\bin>\_

```
import java.util.Scanner;
public class Pbill {
    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, tot = 0;
        double[] rpi = new double[n];
        int[] quant = 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();
            quant[i] = q;
            rpi[i] = r;
        }
        for(int i = 0; i<n; i++){
            indTot = quant[i] * rpi[i] ;
            tot += indTot;
        }
        if (tot >= 10000) {
            System.out.println("Discount = 5%. Total bill = " + tot + " Discounted bill = " + (tot - tot * 0.05));
        }

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



Administrator: Command Prompt

C:\Program Files\Java\jdk1.8.0\_261\bin>javac Pbill.java

C:\Program Files\Java\jdk1.8.0\_261\bin>java Pbill

Enter the number of items:

4

enter quantity of purchase and rate per item for item1

2

65

enter quantity of purchase and rate per item for item2

1

45

enter quantity of purchase and rate per item for item3

4

89

enter quantity of purchase and rate per item for item4

7

65

No discount. Total bill = 986.0

C:\Program Files\Java\jdk1.8.0\_261\bin>

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ENG 4:59 PM  
IN 9/29/2020

```
import java.util.*;
class Extraprogram1{
    public static void main(String args[])
    {
        Scanner ss=new Scanner(System.in);
        int a[],n,even = 0, odd = 0;
        System.out.println("Enter the number of elements");
        n=ss.nextInt();
        a=new int[n];
        System.out.println("Enter the elements:");
        for(int i=0;i<n;i++)
        {
            System.out.println("Enter a["+i+"]");
            a[i]=ss.nextInt();
        }
        for (int i = 0; i < n; i++) {
            if (i % 2 == 0)
                even += a[i];
            else
                odd += a[i];
        }

        System.out.println("Sum of even indices of the array: " + even);
        System.out.println("Sum of odd indices of the array: " + odd);
    }
}
```





```
C:\Program Files\Java\jdk1.8.0_261\bin>javac Extraprogram1.java
```

```
C:\Program Files\Java\jdk1.8.0_261\bin>java Extraprogram1
```

```
Enter the number of elements
```

```
10
```

```
Enter the elements:
```

```
Enter a[0]
```

```
3
```

```
Enter a[1]
```

```
6
```

```
Enter a[2]
```

```
7
```

```
Enter a[3]
```

```
8
```

```
Enter a[4]
```

```
0
```

```
Enter a[5]
```

```
9
```

```
Enter a[6]
```

```
8
```

```
Enter a[7]
```

```
7
```

```
Enter a[8]
```

```
6
```

```
Enter a[9]
```

```
5
```

```
Sum of even indices of the array: 24
```

```
Sum of odd indices of the array: 35
```

```
C:\Program Files\Java\jdk1.8.0_261\bin>
```



```
import java.util.Scanner;
```

```
public class Odd_even_array {  
    public static void main(String[] args){  
        int n, j = 0, k = 0, sum = 0, avg, max, min;  
        Scanner s = new Scanner(System.in);  
        System.out.print("Enter the number of elements in array:");  
        n=s.nextInt();  
        int[] a = new int[n];  
        int[] b = new int[n];  
        int[] c = new int[n];  
        System.out.println("Enter the elements of the array:");  
        for(int i = 0;i<n;i++){  
            a[i] = s.nextInt();  
        }  
        for(int i = 0;i<n;i++){  
            if (a[i] % 2 == 0) {  
                c[j] = a[i];  
                sum += a[i];  
                j++;  
            } else {  
                b[k] = a[i];  
                k++;  
            }  
        }  
        //avg = sum / j;  
        max = c[0];  
        min = c[0];  
        for(int i = 0; i<j;i++){  
            if (c[i] > max){  
                max = c[i];  
            }  
            if (c[i] < min){  
                min = c[i];  
            }  
        }  
        System.out.println("For the even array sum is "+sum+" average is "+(sum/j)+" maximum is "+max+" minimum is "+min);  
    }  
}
```

```
at Natural.main(Natural.java:18)
```

```
C:\Program Files\Java\jdk1.8.0_261\bin>javac Odd_even_array.java
```

```
C:\Program Files\Java\jdk1.8.0_261\bin>java Odd_even_array
```

```
Enter the number of elements in array:10
```

```
Enter the elements of the array:
```

```
8
```

```
9
```

```
0
```

```
8
```

```
7
```

```
5
```

```
7
```

```
6
```

```
8
```

```
8
```

```
For the even array sum is 38 average is 6 maximum is 8 minimum is 0
```

```
C:\Program Files\Java\jdk1.8.0_261\bin>_
```