

```
1. import java.util.*;
```

```
class quadratic {
```

```
    public static void main (String args[]) {
```

```
        Scanner in = new Scanner(System System.in);
```

```
        System.out.println("Enter the the coefficients no.'s a, b, c;");
```

```
        int a a = in.nextInt();
```

```
        int b b = in.nextInt();
```

```
        int c = in.nextInt();
```

```
        double dis = (b*b) - 4*a*c;
```

```
        if (dis < 0) {
```

```
            System.out.println("No real root present");
```

```
        }
```

```
        else if (dis == 0) {
```

```
            root1 = Math.pow((-b + dis) / 2*a, 0.5);
```

```
            root2 = Math.pow((-b - dis) / 2*a, 0.5);
```

```
            System.out.println("The roots are real and equal  
                                : " + root1);
```

```
        }
```

```
        else {
```

```
            root1 = (-b + dis) / 2*a;
```

```
            root2 = (-b - dis) / 2*a;
```

```
            System.out.println("The roots are : " + root1 + " and "  
                                + root2);
```

```
import java.util.*;
```

```
class Player {
```

```
    int id;
```

```
    String name;
```

```
    int n;
```

```
    double scores[];
```

```
    double sum = 0.0;
```

```
    Player() {
```

```
        Scanner in = new Scanner(System.in);
```

```
        System.out.println("Enter no. of matches played by  
        player: ");
```

```
        n = in.nextInt();
```

```
        System.out.println("Score scored in each match:");
```

```
        scores = new double[n];
```

```
        for (int i = 0; i < n; i++) {
```

```
            scores[i] = in.nextDouble();
```

```
        }
```

```
    }
```

```
    double avgScore() {
```

```
        for (int i = 0; i < n; i++) {
```

```
            sum += scores[i];
```

```
        }
```

```
        return sum / n;
```

```
    }
```

```
void display() {
```

```
    System.out.println(" details of the best player  
among two");
```

```
    System.out.println(" Name: " + name);
```

```
    System.out.println(" id: " + id);
```

```
    System.out.println(" No. of matches played: " + n);
```

```
    System.out.println(" scores scored in every match: ");
```

```
    for(int i=0; i<n; i++) {
```

```
        System.out.println(" " + scores[i]);
```

```
    }  
}  
}
```

```
class player {
```

```
    public static void main(String args[]) {
```

```
        Player p1 = new player();
```

```
        Player p2 = new player();
```

```
        double avg1 = 0.0, avg2 = 0.0;
```

```
        avg1 = p1.avg_score();
```

```
        System.out.println(" avg score of player 1: " + avg1);
```

```
        avg2 = p2.avg_score();
```

```
        System.out.println(" avg score of player 2: " + avg2);
```


if (avg1 > avg2) {

System.out.println("Average of player 1 is greater: ");

p1.display();

}

else

{

System.out.println("Avg of player 2 is greater");

p2.display();

}

}

}

quadratic.java

```
1 import java.util.*;
2 import java.lang.Math;
3 class quadratic{
4     public static void main(String args[]){
5         double root1;
6         double root2;
7         Scanner in = new Scanner(System.in);
8         System.out.println("Enter three numbers: ");
9         int a=in.nextInt();
10        int b=in.nextInt();
11        int c=in.nextInt();
12        double dis=(b*b)-4*a*c;
13        if(dis<0){
14            System.out.println("No real roots present");
15        }
16        else if(dis==0){
17            root1 = Math.pow((-b+dis)/2*a, 0.5);
18            root2 = Math.pow((-b-dis)/2*a,0.5);
19            System.out.println("The roots are real and equal: "+root1);
20        }
21        else{
22            root1 = (-b+dis)/2*a;
23            root2 = (-b-dis)/2*a;
24            System.out.println("The roots are: "+root1 + "and "+root2);
25        }
26    }
27 }
28 }
```

```
PS C:\Windows\system32> cd D:\java_programs
PS D:\java_programs> javac quadratic.java
PS D:\java_programs> java quadratic
Enter three numbers:
2
6
3
The roots are: 6.0 and -18.0
PS D:\java_programs>
```



```

1  import java.util.*;
2  class Player{
3      int id;
4      String name;
5      int n;
6      double scores[];
7      double sum=0.0;
8
9
10     Player(){
11         Scanner in=new Scanner(System.in);
12         System.out.println("Enter the name and id of the player");
13         name = in.nextLine();
14         id = in.nextInt();
15         System.out.println("Enter number of matches played by the player :");
16         n=in.nextInt();
17         System.out.println("No of scores scored by played in every match :");
18         scores=new double[n];
19         for(int i=0;i<n;i++)
20         {
21             scores[i]=in.nextDouble();
22         }
23     }
24 }
25
26
27 double avg_score(){
28     for(int i=0;i<n;i++)
29     {
30         sum+=scores[i];
31     }
32     return sum/n;
33 }

```

```

System.out.println("No of matches played :");
System.out.println("No of scores scored by played in every match :");
for(int i=0;i<n;i++)
{
    System.out.println(scores[i]);
}
}
}
}
class player{
public static void main(String args[]){

    Player p1=new Player();
    Player p2=new Player();

    double avg1=0.0,avg2=0.0;

    avg1=p1.avg_score();
    System.out.println("Average score of player1."+avg1);

    avg2=p2.avg_score();
    System.out.println("Average score of player2."+avg2);

    if(avg1>avg2)
    {
        System.out.println("Average score of player1 is greater :");
        p1.display();
    }
    else
    {
        System.out.println("Average score of player2 is greater :");
        p2.display();
    }
}
}
}

```



```

PS D:\java_programs> java avgscore
Enter name and id of player 1:
Prateek
1
Enter the number of matches played by player1:
3
Enter score of match 0:
52
Enter score of match 1:
45
Enter score of match 2:
64
Enter the name and id of player 2:
Pranav
2
Enter the number of matches played by player2:
3
Enter score of match 0:
45
Enter score of match 1:
60
Enter score of match 2:
30
Average of player 1 is: 53.666666666666666664
average of player 2 is: 45.0
id: 1
name: Prateek
player 1 average is more
PS D:\java_programs>

```



```

1  import java.util.*;
2  class oddeve{
3      public static void main(String args[]){
4          int n,evsum=0,odsum=0;
5          Scanner in = new Scanner(System.in);
6          System.out.println("Enter size of array: ");
7          n=in.nextInt();
8          int arr[]=new int[n];
9
10
11          for(int i=0;i<n;i++){
12              System.out.println("Enter the" +i+1 +"element of array: ");
13              arr[i]=in.nextInt();
14          }
15          for(int y=0;y<n;y++){
16              if(y%2==0)
17                  evsum = evsum + arr[y];
18              else
19                  odsum = odsum + arr[y];
20
21          }
22          System.out.println("Odd index sum is: "+odsum);
23          System.out.println("Even index sum is: "+evsum);
24      }
25  }

```



```
PS D:\java_programs> java OddEven
Enter size of array:
3
Enter the0element of array:
3
Enter the1element of array:
4
Enter the2element of array:
6
Odd index sum is: 4
Even index sum is: 9
PS D:\java_programs> █
```



```

import java.util.*;
class posneg{
    public static void main(String args[]){
        int n,countpos=0,countneg=0,countzer=0;
        Scanner in = new Scanner(System.in);

        System.out.println("Enter size of array: ");
        n=in.nextInt();
        int arr[]=new int[n];

        // accepting the elements
        for(int i=0;i<n;i++){
            System.out.println("Enter the " +i +"element of array: ");
            arr[i]=in.nextInt();
        }
        for(int x=0;x<n;x++){
            if(arr[x]>0)
                countpos=countpos+1;
            else if(arr[x]<0)
                countneg = countneg + 1;
            else if(arr[x]==0)
                countzer=countzer+1;
        }
        System.out.println("The number of postive numbers are: "+countpos +"\n\nThe number
    }
}

```

```
PS D:\java_programs> java posneg
Enter size of array:
3
Enter the0element of array:
0
Enter the1element of array:
3
Enter the2element of array:
-4
The number of postive numbers are: 1
The number of Negative numbers are: 1
zeroes are: 1
PS D:\java_programs> █
```