```java
1  import java.util.*;
2  class Height
3  {
4    private int feet;
5    private int inches;
6
7    public void getDistance()
8    {
9      Scanner sc=new Scanner(System.in);
10
11     System.out.print("Enter feet: ");
12     feet=sc.nextInt();
13     System.out.print("Enter inches: ");
14     inches=sc.nextInt();
15   }
16   public void showDistance()
17   {
18     System.out.println("Feet: "+ feet +
   "\tInches: "+ inches);
19   }
20
21   public void addDistance(Height h1, Height
   h2)
22   {
23     inches=h1.inches+h2.inches;
24     feet=h1.feet+h2.feet+(inches/12);
25     inches=inches%12;
26   }
27 }
28
29 public class Main
30 {
31   public static void main(String []s)
32   {
33     System.out.println("Name :V.
   Jahnavi\nSAP ID :51834788");
34     Scanner sc=new Scanner(System.in);
35     try
36     {
37
38       Height h1=new Height();
39       Height h2=new Height();
40       Height h3=new Height();
41
42       //read first Height
43       System.out.println("Enter First
```

```java
21    public void addDistance(Height h1, Height h2)
22      {
23         inches=h1.inches+h2.inches;
24         feet=h1.feet+h2.feet+(inches/12);
25         inches=inches%12;
26      }
27 }
28
29 public class Main
30 {
31    public static void main(String []s)
32      {
33         System.out.println("Name :V. Jahnavi\nSAP ID :51834788");
34         Scanner sc=new Scanner(System.in);
35         try
36         {
37
38            Height h1=new Height();
39            Height h2=new Height();
40            Height h3=new Height();
41
42            //read first Height
43            System.out.println("Enter First Height");
44            h1.getDistance();
45
46            //read second Height
47            System.out.println("Enter Second Height");
48            h2.getDistance();
49
50            //add heights
51            h3.addDistance(h1,h2);
52            //print Height
53            System.out.print("Total Height is:" );
54            h3.showDistance();
55         }
56         catch (Exception e)
57         {
58            System.out.println("Exception occurred..."+ e.toString());
59         }
60      }
61 }
```

```
Name :V. Jahnavi
SAP ID :51834788
Enter First Height
Enter feet: 4
Enter inches: 5
Enter Second Height
Enter feet: 5
Enter inches: 8
Total Height is:Feet: 10 Inches: 1

Process finished.
```

```
Name :V. Jahnavi
SAP ID :51834788
Enter First Height
Enter feet: 5.5
Exception occurred...java.util.InputMismat

Process finished.
```

```java
abstract class Furniture {

  protected String color;
  protected int width;
  protected int height;
  public abstract void accept();
  public abstract void display();
}
  class chair extends Furniture {
  private int numOf_legs;

  public void accept() {

  color = "Blue";
  width = 22;
  height = 40;
  numOf_legs = 4;
}
    public void display()     {
  System.out.println("DISPLAYING VALUE FOR
CHAIR");
  System.out.println("Color is :" + color);
  System.out.println("Width is :" + width);
  System.out.println("Height is :" +
height);
  System.out.println("Number of legs is :" +
numOf_legs);
  System.out.println(" ");
  }
 }

 class Bookshelf extends Furniture {

  private int numOf_shelves;

  public void accept()  {

   color ="Brown";
   width = 70;
   height = 80;
   numOf_shelves = 4;
  }
  public void display ()  {
   System.out.println("DISPLAYING VALUES FOR
BOOKSHELF");|
   System.out.println("Color is :" + color);
```

```java
25    System.out.println(" ");
26   }
27 }
28
29  class Bookshelf extends Furniture {
30
31   private int numOf_shelves;
32
33   public void accept()  {
34
35     color ="Brown";
36     width = 70;
37     height = 80;
38     numOf_shelves = 4;
39   }
40   public void display ()  {
41     System.out.println("DISPLAYING VALUES FOR
  BOOKSHELF");|
42    System.out.println("Color is :" + color);
43    System.out.println("Width is :" + width);
44    System.out.println("Height is :" +
  height);
45    System.out.println("Number of shelves
  is :" + numOf_shelves);
46    System.out.println(" ");
47
  System.out.println("------------------------
  --------------");
48   }
49 }
50
51  class Main  {
52   public static void main(String[] args)    {
53     System.out.println("Name :V.
  Jahnavi\nSAP ID :51834788");
54     Bookshelf bsh1 = new Bookshelf();
55     bsh1.accept();
56     bsh1.display();
57
58
59     chair ch1 = new chair ();
60     ch1.accept();
61     ch1.display();
62
63   }
64   }
```

```
✕  Terminal                                    ⧉

Name :V. Jahnavi
SAP ID :51834788
DISPLAYING VALUES FOR BOOKSHELF
Color is :Brown
Width is :70
Height is :80
Number of shelves is :4


------------------------------------------
DISPLAYING VALUE FOR CHAIR
Color is :Blue
Width is :22
Height is :40
Number of legs is :4


Process finished.
|
```

```java
1  import java.util.Scanner;
2   class RemovingEvenOccurence
3   {
4     public static void main(String args[])
5     {
6         System.out.println("Name :V.
   Jahnavi\nSAP ID:51834788");
7         Scanner sc=new Scanner(System.in);
8         System.out.println("Enter the size of
   the array : ");
9         int n=sc.nextInt();
10        int arr[]=new int[n];
11        int i,j,k,count;
12        System.out.print("Enter "+n+" elements :
   ");
13        for(i=0;i<n;i++)
14        {
15           arr[i]=sc.nextInt();
16        }
17        System.out.print("Input : ");
18        System.out.print("{");
19        for(i=0;i<n;i++)
20        {
21           System.out.print(arr[i]);
22           if(i!=n-1)
23           {
24              System.out.print(",");
25           }
26        }
27        System.out.print("}\n");
28        for(i=0;i<n;i++)
29        {
30           count=1;
31           for(j=i+1;j<n;j++)
32           {
33              if(arr[i]==arr[j])
34              {
35                 count++;
36                 if(count%2==0)
37                 {
38                    for(k=j;k<n-1;k++)
39                    {
40                       arr[k]=arr[k+1];
41                    }
42                    n--;
43                    j--;
```

```java
15          arr[i]=sc.nextInt();
16      }
17      System.out.print("Input : ");
18      System.out.print("{");
19      for(i=0;i<n;i++)
20      {
21          System.out.print(arr[i]);
22          if(i!=n-1)
23          {
24              System.out.print(",");
25          }
26      }
27      System.out.print("}\n");
28      for(i=0;i<n;i++)
29      {
30          count=1;
31          for(j=i+1;j<n;j++)
32          {
33              if(arr[i]==arr[j])
34              {
35                  count++;
36                  if(count%2==0)
37                  {
38                      for(k=j;k<n-1;k++)
39                      {
40                          arr[k]=arr[k+1];
41                      }
42                      n--;
43                      j--;
44                  }
45              }
46          }
47      }
48      System.out.print("Output : ");
49      System.out.print("{");
50      for(i=0;i<n;i++)
51      {
52          System.out.print(arr[i]);
53          if(i!=n-1)
54          {
55              System.out.print(",");
56          }
57      }
58      System.out.print("}\n");
59  }
60  }
```
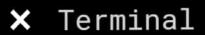
```
Name :V. Jahnavi
SAP ID:51834788
Enter the size of the array :
5
Enter 5 elements : 23
1
2
1
2
Input : {23,1,2,1,2}
Output : {23,1,2}

Process finished.
```

```java
import java.util.Scanner;
class Pattern
{
   public static void main(String[] args)
   {
        System.out.println("Name :V.
Jahnavi\nSAP ID:51834788");
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the number
of rows : ");
        int n=sc.nextInt();
        int i,j,k;
        for(i=1;i<=n;i++)
        {
            for(j=n;j>i;j--)
            {
                System.out.print(" ");
            }
            if(i%2!=0)
            {
                for(j=1,k=1;j<=2*i-1;j++)
                {
                    if(j<i)
                    {
                        System.out.print(k);
                        k++;
                    }
                    else
                    {
                       System.out.print(k);
                       k--;
                    }
                }
            }
            else
            {
                for(j=1,k=i;j<=2*i-1;j++)
                {
                    if(j<i)
                    {
                        System.out.print(k);
                        k--;
                    }
                    else
                    {
                        System.out.print(k);
```

```java
8          System.out.println("Enter the number
 of rows : ");
9          int n=sc.nextInt();
10         int i,j,k;
11         for(i=1;i<=n;i++)
12         {
13             for(j=n;j>i;j--)
14             {
15                     System.out.print(" ");
16             }
17             if(i%2!=0)
18             {
19                 for(j=1,k=1;j<=2*i-1;j++)
20                 {
21                     if(j<i)
22                     {
23                             System.out.print(k);
24                             k++;
25                     }
26                     else
27                     {
28                         System.out.print(k);
29                         k--;
30                     }
31                 }
32             }
33             else
34             {
35                 for(j=1,k=i;j<=2*i-1;j++)
36                 {
37                     if(j<i)
38                     {
39                             System.out.print(k);
40                             k--;
41                     }
42                     else
43                     {
44                             System.out.print(k);
45                             k++;
46                     }
47                 }
48             }
49                 System.out.println();
50         }
51     }
52 }
```

```
X  Terminal                          ⧉

Name :V. Jahnavi
SAP ID:51834788
Enter the number of rows :
5
        1
      212
    12321
   4321234
 123454321

Process finished.
```

```java
import java.util.Scanner;
class Pattern
{
   public static void main(String[] args)
   {
      System.out.println("Name :V.
Jahnavi\nSAP ID:51834788");
      Scanner sc=new Scanner(System.in);
      System.out.println("Enter the number of
series :");
      int n=sc.nextInt();
      float sum=1;
      int j=1;
      for(int i=2;i<=n;i++)
      {
         j=j+2;
         sum=sum+(j^2/j^3);
      }
      System.out.println(sum);
   }
}
```

Name :V. Jahnavi
SAP ID:51834788
Enter the number of series :
5
21.0

Process finished.