```java
public class Main
{
  public static void main(String[] args)
  {
      int i,j,k;
      for(i=1;i<=5;i++)
      {
          for(j=5;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);
                      k++;
                  }
              }
          }
```

TAB { } : " = RUN

OUTPUT

```
    1
   212
  12321
 4321234
123454321
```

```java
import java.util.*;

class Height
{
  private int feet;
  private int inches;

  public void getDistance()
  {
    Scanner sc=new Scanner(System.in);

    System.out.print("Enter feet: ");
    feet=sc.nextInt();
    System.out.print("Enter inches: ");
    inches=sc.nextInt();
  }
  public void showDistance()
  {
    System.out.println("Feet: "+ feet +
"\tInches: "+ inches);
  }

  public void addDistance(Height H1, Height H2)
  {
    inches=H1.inches+H2.inches;
    feet=H1.feet+H2.feet+(inches/12);
    inches=inches%12;
  }
}

public class Main
{
  public static void main(String []s)
  {
    try
    {

      Height H1=new Height();
      Height H2=new Height();
      Height H3=new Height();

      //read first Height
      System.out.println("Author:D.Aditya
```

```
  {
    inches=H1.inches+H2.inches;
    feet=H1.feet+H2.feet+(inches/12);
    inches=inches%12;
  }
}

public class Main
{
  public static void main(String []s)
  {
    try
    {

      Height H1=new Height();
      Height H2=new Height();
      Height H3=new Height();

      //read first Height
      System.out.println("Author:Nancy Florence\nSAP ID:51834501");
      System.out.println("Enter first Height: ");
      H1.getDistance();

      //read second Height
      System.out.println("Enter second Height: ");
      H2.getDistance();

      //add heights
      H3.addDistance(H1,H2);
      //print Height
      System.out.println("Total Height is:" );
      H3.showDistance();
    }
    catch (Exception e)
    {
      System.out.println("Exception occurred :"+e.toString());
    }
  }
}
```

Code Playground

```java
import java.util.*;

class Main
{
  public static int[] remove(int[] x, int key)
{

    List<Integer> result = new ArrayList<>();

    for (int y: x) {
      if (y != key) {
        result.add(y);
      }
    }

    return result.stream()
        .mapToInt(Integer::intValue)
        .toArray();
  }

  public static void main(String[] args) {
    int[] x = { 1, 4, 1, 3, 1, 2, 1, 0 };
    int key = 1;

    x = remove(x, key);
    System.out.println("Author:Nancy
Florence\nSAP ID:51834501");
    System.out.println(Arrays.toString(x));
  }
}
```

TAB { } : " = RUN


Code Playground
OUTPUT
Author:Nancy Florence
SAP ID:51834501
[4, 3, 2, 0]

```
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 = "Brown";
  width = 36;
  height = 48;
  numOf_legs = 4;
 }
    public void display()    {
  System.out.println("DISPLAYING VALUE FOR
CHAIR");

System.out.println("============================
=======");
  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 ="Black";
   width = 72;
   height = 84;
   numOf_shelves = 4;
```

TAB { } : " = RUN

```
26    System.out.println(    );
27    }
28   }
29
30   class Bookshelf extends Furniture {
31
32    private int numOf_shelves;
33
34    public void accept()  {
35
36     color ="Black";
37     width = 72;
38     height = 84;
39     numOf_shelves = 4;
40    }
41    public void display ()  {
42     System.out.println("DISPLAYING VALUES FOR
   BOOKSHELF");
43     System.out.println
44    ("==================================");
45
46    System.out.println("Color is" + color);
47    System.out.println("Width is" + width);
48    System.out.println("Height is" + height);
49    System.out.println("Number of shelves is" +
   numOf_shelves);
50    System.out.println(" ");
51    }
52   }
53
54   class FurnitureDemo  {
55    public static void main(String[] args)   {
56     Bookshelf b1 = new Bookshelf();
57     b1.accept();
58     b1.display();
59
60
61     chair c1 = new chair ();
62     c1.accept();
63     c1.display();
64
65    }
66    }
```

OUTPUT

```
DISPLAYING VALUES FOR BOOKSHELF
===================================
Color isBlack
Width is72
Height is84
Number of shelves is4

DISPLAYING VALUE FOR CHAIR
===================================
Color isBrown
Width is36
Height is48
Number of legs is4
```

```java
import java.util.Scanner;

public class DemoTranslation {
public static void main(String[] args) {
int n;
float sum;
int count;



System.out.print("\nEnter total number of terms :: ");
n = STDIN_SCANNER.nextInt();


sum = 0.0f;


count = 1;
for(int i = 1; i <= n; i++) {
sum = sum + (float)Math.pow(count, 2) / (float)Math.pow(count, 3);
count += 2;
}

System.out.printf("\nSum of the series is :: %f\n", sum);
}

public final static Scanner STDIN_SCANNER = new Scanner(System.in);
}
```

OUTPUT

```
Enter total number of terms ::

Exception in thread "main"
java.util.NoSuchElementException
 at java.base/
java.util.Scanner.throwFor(Scanner.java:
937)
 at java.base/
java.util.Scanner.next(Scanner.java:
1594)
 at java.base/
java.util.Scanner.nextInt(Scanner.java:
2258)
 at java.base/
java.util.Scanner.nextInt(Scanner.java:
2212)
 at
DemoTranslation.main(DemoTranslation.jav
a:12)
```