**TWO TRIANGLE PATTERN**

public class Main

{

public static void main(String[] args)

{

int n=3;

for(int i=1;i<=n;i++)

{

for(int j=1;j<=(2\*n-1);j++)

{

if((j==(n-i)+1)||(j==(n+i)-1))

System.out.print("\*");

else

System.out.print(" ");

}

for(int j=2;j<=(2\*n-1);j++)

{

if((j==(n-i)+1)||(j==(n+i)-1))

System.out.print("\*");

else

System.out.print(" ");

}

System.out.println();

}

}

}

**ROW PATTERN**

public class PatternPrint {

public static void main(String[] args) {

for (int i = 1; i <= 6; i++) {

for (int j = 1; j <= 7 - i; j++) {

System.out.print(i + " ");

}

System.out.println();

}

}

}

**RANDOM NUMBER USING RANDOM CLASS**

import java.util.\*;

public class Main

{

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int n = sc.nextInt();

long seed = System.currentTimeMillis();

long m = 2345879879L;

long a = 776484L;//x=(a\*x+c)%m;

long c =2848793087L;

long x=seed;

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

x=(a\*x+c)%m;

int randomNum=(int)(x%100);

System.out.println(randomNum);

}

}

}

**DIAMOND STAR PATTERN**

public class Main

{

public static void main(String[] args) {

int n=5;

for(int row=0;row<n-1;row++){

for(int col=row;col<=n-1;col++){

System.out.print(" ");

}

for(int col=0;col<=row;col++){

System.out.print("\* ");

}

System.out.println();

}

for(int row=0;row<n;row++){

for(int col=0;col<=row;col++){

System.out.print(" ");

}

for(int col=row;col<=n-1;col++){

System.out.print("\* ");

}

System.out.println();

}

}

}

**INSERTION OF TWO ARRAYS**

public class IntersectionOfTwoArrays {

    public static void main(String args[]) {

        int myArray1[] = {23, 36, 96, 78, 55};

        int myArray2[] = {78, 45, 19, 73, 55};

        System.out.println("Intersection of the two arrays ::");

        for(int i = 0; i < myArray1.length; i++) {

            for(int j = 0; j < myArray2.length; j++) {

                if(myArray1[i] == myArray2[j]) {

                    System.out.println(myArray2[j]);

                }

            }

        }

    }

}

**HOUR GLASS PATTERN**

public class Main{

public static void main(String[] args) {

int n=5;

for(int i=n; i>=1; i--){

    for(int j=1; j<=n-i; j++){

        System.out.print(" ");

    }

    for(int j=1; j<=i; j++){

        System.out.print("\* ");

    }

    System.out.println();

}

for(int i=1; i<=n; i++){

    for(int j=1; j<=n-i; j++){

        System.out.print(" ");

    }

    for(int j=1; j<=i; j++){

        System.out.print("\* ");

    }

    System.out.println();

}

}

}

**PRINT EVEN INDICES**

public class Main {

public static void main(String[] args) {

int [] arr = new int [] {1, 2, 3, 4, 5};

System.out.print("Elements of given array present on even position:");

for (int i = 1; i < arr.length; i = i+2) {

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

}

}

}

**ODD COLUMN UPDOWN TRIANGLE**

import java.util.\*;  
class Main {  
public static void pattern(int n) {    
for (int i = n; i >= 1; i -= 2) {    
 for (int k = n; k > i; k -= 2) {  
 System.out.print(" ");  
  }

 for (int j = 1; j <= i; j++) {  
 System.out.print("\*");  
  }  
  System.out.println();  
  }  
  }

  public static void main(String[] args) {  
  Scanner sc = new Scanner(System.in);  
  int n = sc.nextInt();  
  pattern(n);  
  }  
  }

**FREQUENCIES OF STRING**

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner sc=new Scanner(System.in);

System.out.println("Enter the string is: ");

String str = sc.nextLine();

int[] freq = new int[str.length()];

char str1[] = str.toCharArray();

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

{

freq[i] = 1;

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

{

if(str1[i] == str1[j])

{

freq[i]++;

str1[j] = '0';

}

}

}

System.out.println("Frequencies of the characters in the string are as below: ");

System.out.println("Characters frequencies");

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

{

if(str1[i] != ' ' && str1[i] != '0')

System.out.println(str1[i] + " " + freq[i]);

}

}

}

**COLUMN NUMBER PATTERN**

import java.util.Scanner;

public class Main {

public static void main(String[] args)

{

int i,j,n;

System.out.print("Input number of rows : ");

Scanner in = new Scanner(System.in);

n = in.nextInt();

for(i=1;i<=n;i++)

{

for(j=1;j<=i;j++)

System.out.print(j);

System.out.println("");

}

}

}