# java week 8 assignment solutions

1sol.(clear the content and paste it)

import java.util.\*;

public class Pattern1 {

public static void main(String[] args) {

Scanner inr = new Scanner(System.in);

int n = inr.nextInt();

int k = 0,sum=0;

for(int i = 1; i <= n; ++i, k = 0) {

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

System.out.print(" ");

}

while(k != 2 \* i - 1) {

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

sum=sum+1;

++k;

}

System.out.println();

}

System.out.println(sum);

}

}

**2nd sol.(clear and paste it)**

**import java.util.\*;**

**public class Pattern2 {**

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

**Scanner inr = new Scanner(System.in);**

**int l = inr.nextInt();**

**int i,j;**

**int space=l-1;**

**/\*run loop (parent loop) till number of rows\*/**

**for(i=0;i< l;i++)**

**{**

**/\*loop for initially space, before star printing\*/**

**for(j=0;j< space;j++)**

**{**

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

**}**

**for(j=0;j<=i;j++)**

**{**

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

**}**

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

**space--; /\* decrement one space after one row\*/**

**}**

**}**

**}**

**3rd sol.(clear and paste)**

**import java.util.\*;**

**public class Pattern3 {**

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

**Scanner inr = new Scanner(System.in);**

**int n = inr.nextInt();**

**int k = 1,sum=0;**

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

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

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

**}**

**while(k <= 2 \* i - 1) {**

**System.out.print(k+" ");**

**sum=sum+k;**

**++k;**

**}**

**System.out.println();**

**}**

**System.out.println(sum);**

**}**

**}**

**4th sol.(clear and paste)**

**import java.util.\*;**

**public class Pattern4 {**

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

**Scanner inr = new Scanner(System.in);**

**int l = inr.nextInt();**

**int ul=0; // Upper Line**

**int ll=0; // Lower Line**

**// Check whether line number is odd**

**if (l%2!=0){**

**ul=(l/2)+1;**

**ll=l-ul;**

**//Code for upper half**

**for(int i=1;i<=ul; i++){**

**//Space management**

**for(int s=1;s<=(ul-i); s++){**

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

**}**

**// Star management**

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

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

**}**

**System.out.println();**

**}**

**//Code for lower half**

**int llc=ll;**

**for(int i=1;i<=ll; i++){**

**//Space management**

**for(int s=llc;s<ll; s++){**

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

**}**

**// Star management**

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

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

**}**

**llc--;**

**System.out.println();**

**}**

**}**

**else{**

**System.out.print("Invalid line number");**

**}**

**}**

**}**

**5th sol.**

**import java.util.\*;**

**public class Pattern5 {**

**private static final Map<Integer, Integer> encodings =**

**new HashMap<Integer, Integer>();**

**static {**

**encodings.put(0, 0x7E);**

**encodings.put(1, 0x30);**

**encodings.put(2, 0x6D);**

**encodings.put(3, 0x79);**

**encodings.put(4, 0x33);**

**encodings.put(5, 0x5B);**

**encodings.put(6, 0x5F);**

**encodings.put(7, 0x70);**

**encodings.put(8, 0x7F);**

**encodings.put(9, 0x7B);**

**}**

**public static void printDigit(int digit) {**

**int code = encode(digit);**

**char[] bits =**

**String.format("%7s", Integer.toBinaryString(code))**

**.replace(' ', '0').toCharArray();**

**lightSegment(bits[0] == '1', " \_ \n", " \n");**

**lightSegment(bits[5] == '1', "|", " ");**

**lightSegment(bits[6] == '1', "\_", " ");**

**lightSegment(bits[1] == '1', "|\n", " \n");**

**lightSegment(bits[4] == '1', "|", " ");**

**lightSegment(bits[3] == '1', "\_", " ");**

**lightSegment(bits[2] == '1', "|\n", " \n");**

**}**

**private static void lightSegment(boolean on, String onValue, String offValue) {**

**System.out.print(on ? onValue : offValue);**

**try {**

**Thread.sleep(0);**

**}**

**catch (InterruptedException e) {**

**e.printStackTrace();**

**}**

**}**

**private static int encode(int digit) {**

**return encodings.containsKey(digit) ? encodings.get(digit) : 0x00;**

**}**

**public static void main(String[] args) throws Exception {**

**Scanner inr = new Scanner(System.in);**

**int n = inr.nextInt();**

**printDigit(n);**

**}**

**}**