**Curious Coders**

**Week 2 – Problems:**

**Prob1:** Write a Program which takes input n and prints the below pattern and upload the code to your github repo.

Sample 1:

Input:

n = 4

Expected output:

\*\*\*\*

\*\*\*

\*\*

\*

Sample 2

Input:

n= 6

\*\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*

\*\*\*

\*\*

\*

**Code:**

import java.util.Scanner;

class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number : ");

int n = scanner.nextInt();

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

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

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

}

System.out.println();

}

}

}

--------------------------------------------------------------------------------------------------------------

**Prob2: Write a Program which takes input n and prints the below pattern and upload the code to your github repo.**

**Sample 1:**

**Input:**

**n = 4**

**Expected output:**

**4321**

**321**

**21**

**1**

**Sample 2**

**Input:**

**n= 6**

**654321**

**54321**

**4321**

**321**

**21**

**1**

**Code:**

import java.util.Scanner;

class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number : ");

int n = scanner.nextInt();

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

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

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

}

System.out.println();

}

}

}

--------------------------------------------------------------------------------------------------------------

**Prob3: Write a Program that takes input n and prints the below pattern and upload the code to your github repo.**

**Sample 1:**

**Input:**

**n = 4**

**Expected output:**

**\***

**\*\***

**\*\*\***

**\*\*\*\***

**Sample 2**

**Input:**

**n= 6**

**\***

**\*\***

**\*\*\***

**\*\*\*\***

**\*\*\*\*\***

**\*\*\*\*\*\***

**Code:**

import java.util.Scanner;

class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number : ");

int n = scanner.nextInt();

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

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

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

}

System.out.println();

}

}

}

--------------------------------------------------------------------------------------------------------------

**Prob4: Write a Program that takes input n and prints the below pattern and upload the code to your github repo.**

**Sample 1:**

**Input:**

**n = 4**

**Expected output:**

**\***

**\* \***

**\* \* \***

**\* \* \* \***

**\* \* \***

**\* \***

**\***

**Code:**

import java.util.Scanner;

class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number : ");

int n = scanner.nextInt();

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

if(i<=n){

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

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

}

System.out.println();

}else{

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

for(int j=k;j>=1;j--){

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

}

System.out.println();

}

break;

}

}

}

}

--------------------------------------------------------------------------------------------------------------

**Another Solution for Prob4:**

import java.util.Scanner;

class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number : ");

int n=scanner.nextInt();

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

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

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

}

System.out.println();

}

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

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

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

}

System.out.println();

}

}

}

--------------------------------------------------------------------------------------------------------------

**Prob5: Write a Program that takes input n and prints the below pattern and upload the code to your github repo.**

**Input**: 5

**Output:**

**\***

**\*\*\***

**\*\*\*\*\***

**\*\*\*\*\*\*\***

**\*\*\*\*\*\*\*\*\***

**Code:**

import java.util.Scanner;

class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number : ");

int n = scanner.nextInt();

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

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

System.out.print(" ");

}

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

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

}

System.out.println();

}

}

}

--------------------------------------------------------------------------------------------------------------

**Prob6: Write a Program that takes input n and prints the below pattern and upload the code to your github repo.**

**Input**: 5

**Output:**

**\*\*\*\*\*\*\*\*\***

**\*\*\*\*\*\*\***

**\*\*\*\*\***

**\*\*\***

**\***

**Code:**

import java.util.Scanner;

class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number : ");

int n = scanner.nextInt();

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

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

System.out.print(" ");

}

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

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

}

System.out.println();

}

}

}

**Prob7: Write a Program that takes input n and prints the below pattern and upload the code to your github repo.**

**Input**: 5

**Output:**

**\***

**\*\*\***

**\*\*\*\*\***

**\*\*\*\*\*\*\***

**\*\*\*\*\*\*\*\*\***

**\*\*\*\*\*\*\***

**\*\*\*\*\***

**\*\*\***

**\***

**Code:**

import java.util.Scanner;

class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number : ");

int n = scanner.nextInt();

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

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

System.out.print(" ");

}

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

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

}

System.out.println();

}

for(int i=2;i<=n;i++){

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

System.out.print(" ");

}

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

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

}

System.out.println();

}

}

}

--------------------------------------------------------------------------------------------------------------

**Prob8: Write a Program that takes input n and prints the below pattern and upload the code to your github repo.**

**Input: 5**

**Output:**

**1**

**2 3**

**4 5 6**

**7 8 9 10**

**11 12 13 14 15**

**Code:**

import java.util.Scanner;

class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number : ");

int n = scanner.nextInt();

int a=1;

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

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

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

}

System.out.println();

}

}

}

--------------------------------------------------------------------------------------------------------------

**Prob9: Write a Program that takes input n and prints the below pattern and upload the code to your github repo.**

**Input: 3**

**Output:**

**1**

**2 2**

**3 3 3**

**Code:**

import java.util.Scanner;

class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number : ");

int n = scanner.nextInt();

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

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

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

}

System.out.println();

}

}

}

**Prob10 : Write a program that gets n as input and print the number of digits in the number**

**Testcase 1 :**

**Input :**

**325345**

**Expected output:**

**6**

**Testcase 2 :**

**Input :**

**9879**

**Expected output:**

**4**

**Code:**

import java.util.Scanner;

class Main {

public static void main(String[] args) {

int count = 0;

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number : ");

int n = scanner.nextInt();

while(n>0){

int a = n%10;

count+=1;

n=n/10;

}

System.out.println("No of Digits in the given number : "+count);

}

}

--------------------------------------------------------------------------------------------------------------