**Basics Patterns**

**Question 1:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the following Basic Pattern?

If Input is 5 then Print

1 1 1 1 1

2 2 2 2 2

3 3 3 3 3

4 4 4 4 4

5 5 5 5 5

**Constraints:**

Input          :- First Line of Input Consists of One Integer Value ( Rows & Columns ).

Output        :- Print the Square Pattern.

Constraints  :- Given Input Must be Greater than Zero or else Print **InValid InPut**.

**Example:**

Input 1  :    5

Output 1:

1 1 1 1 1

2 2 2 2 2

3 3 3 3 3

4 4 4 4 4

5 5 5 5 5

Input 2  :    3

Output 2:

1 1 1

2 2 2

3 3 3

**Explanation:**

Print a Square Pattern by taking One Integer Input

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String []args)

{

Scanner sc=new Scanner(System.in);

int n=sc.nextInt();

if(n<=0)

{

System.out.print("InValid InPut");

}

else{

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

{

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

{

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

}

System.out.println();

}

}

}

}

**Question 2:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the following Basic Pattern?

If Input is 5 4 then Print

\* \* \* \*

\* \* \* \*

\* \* \* \*

\* \* \* \*

\* \* \* \*

**Constraints:**

Input          :- First Line of Input Consists of Two Integer Values ( Rows & Columns ).

Output        :- Print the Rectangle Pattern.

Constraints  :- Given Input Must be Greater than Zero or else Print **Invalid Inputs**.

**Example:**

Input 1  :    5 4

Output 1:

\* \* \* \*

\* \* \* \*

\* \* \* \*

\* \* \* \*

\* \* \* \*

Input 2  :    3 3

Output 2:

\* \* \*

\* \* \*

\* \* \*

**Explanation:**

Print a Rectangle Pattern by taking Two Integer Inputs

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String[] args)

{

Scanner sc=new Scanner(System.in);

int a=sc.nextInt();

int b=sc.nextInt();

if(a>0 && b>0)

{

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

{

for(int j=1;j<=b;j++)

{

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

}

System.out.println();

}

}

else{

System.out.print("Invalid Inputs");

}

}

}

**Question 3:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the following Basic Pattern?

If Input is 5 then Print

1 0 0 0 0

0 2 0 0 0

0 0 3 0 0

0 0 0 4 0

0 0 0 0 5

**Constraints:**

Input          :- First Line of Input Consists of One Integer Value ( Rows & Columns ).

Output        :- Print the Following Pattern.

Constraints  :- Given Input Must be Greater than Zero or else Print **Invalid Input**.

**Example:**

Input 1  :    5

Output 1:

1 0 0 0 0

0 2 0 0 0

0 0 3 0 0

0 0 0 4 0

0 0 0 0 5

Input 2  :    8

Output 2:

1 0 0 0 0 0 0 0

0 2 0 0 0 0 0 0

0 0 3 0 0 0 0 0

0 0 0 4 0 0 0 0

0 0 0 0 5 0 0 0

0 0 0 0 0 6 0 0

0 0 0 0 0 0 7 0

0 0 0 0 0 0 0 8

**Explanation:**

Print a Following Pattern by taking One Integer Input

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String []args)

{

Scanner sc=new Scanner(System.in);

int n=sc.nextInt();

if(n<=0)

{

System.out.print("Invalid Input");

}

else{

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

{

for(int j=0;j<n;j++)

{

if(i==j)

{

System.out.print(i+1+" ");

}

else{

System.out.print(0+" ");

}

}

System.out.println();

}

}

}

}

**Question 4:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the following Basic Pattern?

If Input is 5 then Print

1 0 1 0 1

1 0 1 0 1

1 0 1 0 1

1 0 1 0 1

1 0 1 0 1

**Constraints:**

Input          :- First Line of Input Consists of One Integer Value ( Rows & Columns ).

Output        :- Print the Square Pattern.

Constraints  :- Given Input Must be Greater than Zero or else Print **Invalid Input**.

**Example:**

Input 1  :    5

Output 1:

1 0 1 0 1

1 0 1 0 1

1 0 1 0 1

1 0 1 0 1

1 0 1 0 1

Input 2  :    6

Output 2:

1 0 1 0 1 0

0 1 0 1 0 1

1 0 1 0 1 0

0 1 0 1 0 1

1 0 1 0 1 0

0 1 0 1 0 1

**Explanation:**

Print a Square Pattern by taking One Integer Input

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String []args)

{

Scanner sc=new Scanner(System.in);

int n=sc.nextInt();

if(n<=0)

{

System.out.print("Invalid Input");

}

else{

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

{

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

if(n%2==1)

{

if(j%2==1)

{

System.out.print("1"+" ");

}

else{

System.out.print("0"+" ");

}

}

else{

if((i+j)%2==0)

{

System.out.print("1"+" ");

}

else{

System.out.print("0"+" ");

}

}

}

System.out.println();

}

}

}

}

**Question 5:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the following Basic Pattern?

If Input is 5 and 5 then Print

1\*2\*3\*4\*5

6\*7\*8\*9\*10

11\*12\*13\*14\*15

16\*17\*18\*19\*20

21\*22\*23\*24\*25

**Constraints:**

Input          :- First Line of Input Consists of Two Integer Values ( Rows & Columns ).

Output        :- Print the Given Pattern.

Constraints  :- Given Inputs Must be Greater than Zero ->Print the following Pattern.

                      If the Given Inputs: Row and Column values are less than or equal to Zero then Print **Invalid Row and Column Values**.

                      If the Given Inputs: Row value is less than or equal to Zero then Print **Invalid Row Value**.

                      If the Given Inputs: Column value is less than or equal to Zero then Print **Invalid Column Value**.

**Example:**

Input 1  :    5 5

Output 1:

1\*2\*3\*4\*5

6\*7\*8\*9\*10

11\*12\*13\*14\*15

16\*17\*18\*19\*20

21\*22\*23\*24\*25

Input 2  :     5 -5

Output 2:

Invalid Column Value

**Explanation:**

If the All Given Inputs are greater than zero then Print following Pattern or else print respective Invalid Statement.

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String []args)

{

Scanner sc=new Scanner(System.in);

int a=sc.nextInt();

int b=sc.nextInt();

if(a<=0 && b<=0)

{

System.out.print("Invalid Row and Column Values");

}

else if(a<=0){

System.out.print("Invalid Row Value");

}

else if(b<=0)

{

System.out.print("Invalid Column Value");

}

else{

int num=1;

for(int i=0;i<a;i++)

{

for(int j=0;j<b;j++)

{

System.out.print(num);

if(j<b-1)

{

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

}

num++;

}

System.out.println();

}

}

}

}

**Question 6:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the following Basic Pattern?

If Input is 5 then Print

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

**Constraints:**

Input          :- First Line of Input Consists of One Integer Value ( Rows & Columns ).

Output        :- Print the Square Pattern.

Constraints  :- Given Input Must be Greater than Zero.

**Example:**

Input 1  :    5

Output 1:

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

Input 2  :    3

Output 2:

\* \* \*

\* \* \*

\* \* \*

**Explanation:**

Print a Square Pattern by taking One Integer Input

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String []args)

{

Scanner sc=new Scanner(System.in);

int n=sc.nextInt();

if(n>0){

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

{

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

{

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

}

System.out.println();

}

}

}

}

**Question 7:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the following Basic Pattern?

If Input is 5 then Print

55555

54444

54333

54322

54321

**Constraints:**

Input          :- First Line of Input Consists of One Integer Value ( Rows & Columns ).

Output        :- Print the Following Pattern.

Constraints  :- Given Input Must be Greater than Zero or else if input is 0 then Print the **InvaliD Input** or convert the given input negative value to positive value and then print the Pattern.

**Example:**

Input 1  :    5

Output 1:

55555

54444

54333

54322

54321

Input 2  :    -8

Output 2:

88888888

87777777

87666666

87655555

87654444

87654333

87654322

87654321

**Explanation:**

Print the Given Pattern by taking one integer Input

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String []args)

{

Scanner sc=new Scanner(System.in);

int n=sc.nextInt();

n=Math.abs(n);

if(n==0)

{

System.out.print("InvaliD Input");

}

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

{

for(int j=0;j<n;j++)

{

if(j<=i)

{

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

}

else{

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

}

}

System.out.println();

}

}

}

**Question 8:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the following Basic Pattern?

If Input is 5 then Print

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

**Constraints:**

Input          :- First Line of Input Consists of One Integer Value ( Rows & Columns ).

Output        :- Print the Square Pattern.

Constraints  :- Given Input Must be Greater than Zero or else Print the **Invalid Input**.

**Example:**

Input 1  :    5

Output 1:

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

Input 2  :    3

Output 2:

1 2 3

1 2 3

1 2 3

**Explanation:**

Print the Square Pattern by taking One Integer Input

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String []args)

{

Scanner sc=new Scanner(System.in);

int n=sc.nextInt();

if(n<=0)

{

System.out.print("Invalid Input");

}

else{

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

{

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

{

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

}

System.out.println();

}

}

}

}

**Question 9:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the following Basic Pattern?

If Input is 5 and 6 then Print

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

\* $ $ $ $ \*

\* $ $ $ $ \*

\* $ $ $ $ \*

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

**Constraints:**

Input          :- First Line of Input Consists of Two Integer Values ( Rows & Columns ).

Output        :- Print the Given Pattern.

Constraints  :- Given Inputs Must be Greater than Zero or else Print **Invalid Inputs**.

**Example:**

Input 1  :    5 6

Output 1:

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

\* $ $ $ $ \*

\* $ $ $ $ \*

\* $ $ $ $ \*

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

Input 2  :    3 6

Output 2:

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

\* $ $ $ $ \*

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

**Explanation:**

Print the Stars(\*) at Boarders and in middle print dollars($) in the Given Square/Rectangle Patterns

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String []args)

{

Scanner sc=new Scanner(System.in);

int a=sc.nextInt();

int b=sc.nextInt();

if(a<=0 || b<=0)

{

System.out.print("Invalid Inputs");

}

else{

for(int i=0;i<a;i++)

{

for(int j=0;j<b;j++)

{

if(i==0 || i==a-1)

{

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

}

else if(j==0 || j==b-1)

{

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

}

else{

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

}

}

System.out.println();

}

}

}

}

**Question 10:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the following Basic Pattern?

If Input is 3 and 5 then Print

1 2 3 4 5

6 7 8 9 10

11 12 13 14 15

**Constraints:**

Input          :- First Line of Input Consists of Two Integer Values ( Rows & Columns ).

Output        :- Print the Following Pattern.

Constraints  :- Either of the Given Inputs is Zero then Print **Invalid Inputs**.

                      If the Given Inputs is Negative then Convert into Positive and then Print Following Output

**Example:**

Input 1  :    3 5

Output 1:

1 2 3 4 5

6 7 8 9 10

11 12 13 14 15

Input 2  :    5 4

Output 2:

1 2 3 4

5 6 7 8

9 10 11 12

13 14 15 16

17 18 19 20

**Explanation:**

If the Given Inputs is negative then Convert to Positive And print Following Pattern

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String []args)

{

Scanner sc=new Scanner(System.in);

int a=sc.nextInt();

int b=sc.nextInt();

if(a==0 || b==0)

{

System.out.print("Invalid Inputs");

}

else{

if(a<0)

{

a=-a;

}

if(b<0)

{

b=-b;

}

int num=1;

for(int i=0;i<a;i++)

{

for(int j=0;j<b;j++)

{

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

num++;

}

System.out.println();

}

}

}

}

**Question 11:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the following Basic Pattern?

If Input is 5 then Print

1 2 3 \* 5

6 7 \* 9 10

11 \* 13 14 15

\* 17 18 19 \*

21 22 23 \* 25

**Constraints:**

Input          :- First Line of Input Consists of One Integer Value ( Rows & Columns ).

Output        :- Print the Given Pattern.

Constraints  :- Given Input Must be Greater than Zero Or Else Print **Given Value is Invalid**.

**Example:**

Input 1  :    5

Output 1:

1 2 3 \* 5

6 7 \* 9 10

11 \* 13 14 15

\* 17 18 19 \*

21 22 23 \* 25

Input 2  :     -5

Output 2:

Given Value is Invalid

**Explanation:**

Print the Natural Numbers in Square Pattern but when the Number is Divisibke by 4 then Print Star(\*) Instead of Number.

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String []args)

{

Scanner sc=new Scanner(System.in);

int n=sc.nextInt();

if(n<=0)

{

System.out.print("Given Value is Invalid");

}

else{

int num=1;

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

{

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

{

if(num%4==0)

{

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

}

else{

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

}

num++;

}

System.out.println();

}

}

}

}

**Question 12:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the following Basic Pattern?

If Input is 6 then Print

1 1 1 1 1 1

1 1 1 1 2 2

1 1 1 3 3 3

1 1 4 4 4 4

1 5 5 5 5 5

6 6 6 6 6 6

**Constraints:**

Input          :- First Line of Input Consists of One Integer Value ( Rows & Columns ).

Output        :- Print the Following Pattern.

Constraints  :- Given Input Must be Greater than Zero or Else Print **Invalid Input**.

**Example:**

Input 1  :    6

Output 1:

1 1 1 1 1 1

1 1 1 1 2 2

1 1 1 3 3 3

1 1 4 4 4 4

1 5 5 5 5 5

6 6 6 6 6 6

Input 2  :    5

Output 2:

1 1 1 1 1

1 1 1 2 2

1 1 3 3 3

1 4 4 4 4

5 5 5 5 5

**Explanation:**

Print the Given Pattern by taking one Integer Input.

**Your Code: java**

import java.util.Scanner;

class Main

{

public static void main(String []args)

{

Scanner sc=new Scanner(System.in);

int n=sc.nextInt();

if(n>0)

{

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

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

{

if(j<n-i+1)

{

System.out.print("1"+" ");

}

else{

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

}

}

System.out.println();

}

}

else{

System.out.print("Invalid Input");

}

}

}