**Equilateral Triangle Patterns**

**Question 1:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the Following Pattern?

If Input is 5 then Print

        01

      02  03

    04  05  06

  07  08  09  10

11  12  13  14  15

**Constraints:**

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

Output        :- Print the Given Pattern.

Constraints  :- If the Given Input is 0 then Print **"Invalid Input"**.

                      If the Given Input is Negative convert into Positive and Print the Pattern.

**Example:**

Input 1  :    5

Output 1:

        01

      02  03

    04  05  06

  07  08  09  10

11  12  13  14  15

Input 2  :    -3

Output 2:

     01

  02  03

04  05  06

**Explanation:**

NA

**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();

int c=1;

if(n==0)

{

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

}

else{

n=Math.abs(n);

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

{

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

{

if(j>=i)

{

System.out.printf("%02d ",c);

c++;

}

else{

System.out.printf(" ");

}

}

System.out.println();

}

}

}

}

**Question 2:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the Following Pattern?

If Input is 3 then Print

12321

 232

  3

**Constraints:**

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

Output        :- Print the Given Pattern.

Constraints  :- If the Given input is positive it should be odd or else Print **"Invalid Input".**

                      If the Given input is Negative it should be even or else Print **"Invalid Input".**

                      If the Given input is zero then print **"Invalid Input"**.

                      If the Given input is Negative and even convert the value into positive and Print the Pattern.

**Example:**

Input 1  :    3

Output 1:

12321

 232

  3

Input 2  :    -4

Output 2:

1234321

 23432

  343

   4

**Explanation:**

NA

**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.println("Invalid Input");

}

else if(n>0 && n%2==0)

{

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

}

else if(n<0 && n%2!=0)

{

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

}

else

{

n=Math.abs(n);

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

{

int c=i;

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

{

System.out.print(" ");

}

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

{

System.out.print(c);

c++;

}

c-=2;

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

{

System.out.print(c);

c--;

}

System.out.println();

}

}

}

}

**Question 3:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the Following Pattern?

If Input is 5 then Print

    1

   1 1

  1 2 1

 1 3 3 1

1 4 6 4 1

**Constraints:**

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

Output        :- Print the Given Pattern.

Constraints  :- If the Given Input is Zero then Print "**Invalid Input"**.

                      If the GIven value is Negative value then Print **"Given Input is Negative".**

**Example:**

Input 1  :    5

Output 1:

    1

   1 1

  1 2 1

 1 3 3 1

1 4 6 4 1

Input 2  :    -3

Output 2:    Given Input is Negative

**Explanation:**

NA

**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 if(n<0)

{

System.out.print("Given Input is Negative");

}

else

{

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

{

int k=1;

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

{

System.out.print(" ");

}

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

{

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

k=k\*(i-j)/j;

}

System.out.println();

}

}

}

}

**Question 4:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the Following Pattern?

If Input is 4 then Print

   1

  121

 12321

1234321

**Constraints:**

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

Output        :- Print the Given Pattern.

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

**Example:**

Input 1  :    4

Output 1:

   1

  121

 12321

1234321

Input 2  :    -6

Output 2:    Invalid Input

**Explanation:**

NA

**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 k=1;k<=n-i;k++)

{

System.out.print(" ");

}

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

{

System.out.print(j);

}

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

{

System.out.print(j);

}

System.out.println();

}

}

}

}

**Question 5:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the Following Pattern?

If Input is 5 then Print

\* \* \* \* \*

 \* \* \* \*

  \* \* \*

   \* \*

    \*

**Constraints:**

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

Output        :- Print the Given Pattern.

Constraints  :- If the Given Input is Zero, Print "**Invalid Input"**.

                      If the Given input is negative value then convert it into positive value and Print the pattern.

**Example:**

Input 1  :    5

Output 1: 5

\* \* \* \* \*

 \* \* \* \*

  \* \* \*

   \* \*

    \*

Input 2  :    -4

Output 2:

\* \* \* \*

 \* \* \*

  \* \*

   \*

**Explanation:**

NA

**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

{

n=Math.abs(n);

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

{

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

{

if(j<i)

{

System.out.print(" ");

}

else{

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

}

}

System.out.println();

}

}

}

}

**Question 6:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the Following Pattern?

If Input is 5 then Print

    \*

   \* \*

  \* \* \*

 \* \* \* \*

\* \* \* \* \*

**Constraints:**

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

Output        :- Print the Given Pattern.

Constraints  :- If the Given Input is Negative then Print "**Invalid Input"**.

                      If input is 0 then print "**Zero"**.

**Example:**

Input 1  :    5

Output 1:

    \*

   \* \*

  \* \* \*

 \* \* \* \*

\* \* \* \* \*

Input 2  :    -6

Output 2:    Invalid Input

**Explanation:**

NA

**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");

}

if(n==0)

{

System.out.print("Zero");

}

else{

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

{

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

{

if(j<=n-i)

{

System.out.print(" ");

}

else{

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

}

}

System.out.println();

}

}

}

}

**Question 7:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the Following Pattern?

If Input is 4 then Print

   1

  212

 32123

4321234

**Constraints:**

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

Output        :- Print the Given Pattern.

Constraints  :- If the Given Input is Zero then Print **"Oh! I got Zero(0)"**.

                      If the Given Input is Negative then convert into Positive value and Print the pattern.

**Example:**

Input 1  :    4

Output 1:

   1

  212

 32123

4321234

Input 2  :    -6

Output 2:

     1

    212

   32123

  4321234

 543212345

65432123456

**Explanation:**

NA

**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("Oh! I got Zero(0)");

}

else

{

if(n<0)

n=-n;

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

{

for(int j=n;j>=1;j--)

{

if(j<=i)

System.out.print(j);

else

System.out.print(" ");

}

for(int j=2;j<=i;j++)

{

if(j<=i)

System.out.print(j);

}

System.out.println();

}

}

}

}

**Question 8:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the Following Pattern?

If Input is 4 then Print

   1

  1 2

 1 2 3

1 2 3 4

**Constraints:**

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

Output        :- Print the Given Pattern.

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

**Example:**

Input 1  :    4

Output 1:

   1

  1 2

 1 2 3

1 2 3 4

Input 2  :    -4

Output 2:    Invalid Input

**Explanation:**

NA

**Your Code: java**

import java.util.Scanner;

class A

{

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++)

{

int c=1;

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

{

if(j<=n-i)

{

System.out.print(" ");

}

else{

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

c++;

}

}

System.out.println();

}

}

}

}

**Question 9:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the Following Pattern?

If Input is 5 then Print

    1

   2 2

  3 3 3

 4 4 4 4

5 5 5 5 5

**Constraints:**

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

Output        :- Print the Given Pattern.

Constraints  :- If the Given Input is Zero then Print **"Invalid Input"**.

                      If the Given Input is negative then Print **"Invalid ROW Input".**

**Example:**

Input 1  :    5

Output 1:

    1

   2 2

  3 3 3

 4 4 4 4

5 5 5 5 5

Input 2  :    -6

Output 2:    Invalid ROW Input

**Explanation:**

NA

**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();

int c=1;

if(n==0)

{

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

}

else{

if(n<=0)

{

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

}

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

{

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

{

if(j<=n-i)

{

System.out.print(" ");

}

else{

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

}

}

c++;

System.out.println();

}

}

}

}

**Question 10:**

Report

**Marks: +10-0**

**Description:**

Write a Program to Print the Following Pattern?

If Input is 4 then Print

4444444

 33333

  222

   1

**Constraints:**

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

Output        :- Print the Given Pattern.

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

**Example:**

Input 1  :    4

Output 1:

4444444

 33333

  222

   1

Input 2  :    -4

Output 2:    Invalid Input

**Explanation:**

NA

**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=n;i>=1;i*--)*

{

for(int j=n;j>=1;j*--)*

{

if(j<=i)

{

System.out.print(i);

}

else

{

System.out.print(" ");

}

}

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

{

System.out.print(i);

}

System.out.println();

}

}

}

}