Nested For Loop:

1. import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n;

//i=sc.nextInt();

//j=sc.nextInt();

n=sc.nextInt();

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

{

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

{

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

}

System.out.println();

}

}

}

Output:

4

1

1 2

1 2 3

1 2 3

1. import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n;

//i=sc.nextInt();

//j=sc.nextInt();

n=sc.nextInt();

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

{

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

{

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

}

System.out.println();

}

}

}

Output:

4

1

2 2

3 3 3

4 4 4 4

1. import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n;

n=sc.nextInt();

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

{

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

{

System.out.print(" @");

}

System.out.println();

}

}

}

Output:

5

@

@ @

@ @ @

@ @ @ @

@ @ @ @ @

1. import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n;

//i=sc.nextInt();

//j=sc.nextInt();

n=sc.nextInt();

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

{

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

{

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

}

System.out.println();

}

}

}

Output:

5

\*

\*

\* \*

\* \* \*

\* \* \* \*

1. import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n,k=1;

//i=sc.nextInt();

//j=sc.nextInt();

n=sc.nextInt();

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

{

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

{

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

}

System.out.println();

}

}

}

Output:

5

1

2 3

4 5 6

7 8 9 10

11 12 13 14 15

6.

import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n,k=1;

//i=sc.nextInt();

//j=sc.nextInt();

n=sc.nextInt();

k=sc.nextInt();

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

{

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

{

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

k=k+2;

}

System.out.println();

}

}

}

Output:

5

1

1

3 5

7 9 11

13 15 17 19

21 23 25 27 29

7.

import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n,k=64;

n=sc.nextInt();

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

{

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

{

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

}

System.out.println();

}

}

}

Output:

5

A

A B

A B C

A B C D

A B C D E

8.

import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n,k=64;

n=sc.nextInt();

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

{

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

{

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

}

System.out.println();

}

}

}

Output:

4

A

B B

C C C

D D D D

9.

import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n,k=96;

n=sc.nextInt();

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

{

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

{

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

}

System.out.println();

}

}

}

Output:

5

a

a b

a b c

a b c d

a b c d e

10.

import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n,k=96;

n=sc.nextInt();

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

{

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

{

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

}

System.out.println();

}

}

}

Output:

4

a

b b

c c c

d d d d

11.

import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n,ch=65;

n=sc.nextInt();

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

{

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

{

System.out.print((char)ch ++);

}

System.out.println();

}

}

}

Output:

5

A

B C

D E F

G H I J

K L M N O

12.

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

int alphabet = 96;

for (int i = 0; i <= 5; i++)

{

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

{

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

}

System.out.println();

}

}

}

Output:

`

` a

` a b

` a b c

` a b c d

` a b c d e

13.

import java.util.\*;

class Main

{ public static void main(String[] args)

{

int n,ch =64,chi=96;

Scanner sc = new Scanner(System.in);

System.out.println("enter n");

n=sc.nextInt();

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

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

{

System.out.print(" "+(char) (ch+j) + (char) (chi+j));

}

System.out.println();

}

}

}

Output:

enter n

4

Aa

Aa Bb

Aa Bb Cc

Aa Bb Cc Dd

14.

import java.util.\*;

class Main

{ public static void main(String[] args)

{

int n,ch =64,chi=96;

Scanner sc = new Scanner(System.in);

System.out.println("enter n");

n=sc.nextInt();

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

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

{

System.out.print(" "+(char)(ch+i)+(char)(chi+i));

}

System.out.println();

}

}

}

Output:

enter n

4

Aa

Bb Bb

Cc Cc Cc

Dd Dd Dd Dd

15.

import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n,k=1;

//i=sc.nextInt();

//j=sc.nextInt();

n=sc.nextInt();

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

{

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

{

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

}

System.out.println();

}

}

}

Output:

5

1 2 3 4 5

1 2 3 4

1 2 3

1 2

1

16.

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

int i,j,n;

Scanner sc=new Scanner(System.in);

n=sc.nextInt();

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

{

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

{

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

}

System.out.println();

}

}

}

Output:

4

1 2 3 4

1 2 3 4

1 2 3 4

1 2 3 4

17.

import java.util.\*;

class Main

{

public static void main(String[] args)

{

Scanner sc=new Scanner(System.in);

int n;

n=sc.nextInt();

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

{

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

{

if (i >= j)

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

else

System.out.print(" ");

}

System.out.println();

}

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

{

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

{

if (i + j <= n + 1)

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

else

System.out.print(" ");

}

System.out.println();

}

}

}

Output:

4

1

1 2

1 2 3

1 2 3 4

1 2 3 4

1 2 3

1 2

1

18.

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.println("Enter the number of rows: ");

int rows = sc.nextInt();

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

{

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

{

if(j%2 == 0)

{

System.out.print(0);

}

else

{

System.out.print(1);

}

}

System.out.println();

}

sc.close();

}

}

Output:

Enter the number of rows:

5

1

10

101

1010

10101

19.

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.println("Enter the number of rows: ");

int rows = sc.nextInt();

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

{

int num;

if(i%2 == 0)

{

num = 0;

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

{

System.out.print(num);

num = (num == 0)? 1 : 0;

}

}

else

{

num = 1;

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

{

System.out.print(num);

num = (num == 0)? 1 : 0;

}

}

System.out.println();

}

sc.close();

}

}

Output:

Enter the number of rows:

1 4

1010

0101

1010

0101

20.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n,i,j;

Scanner sc=new Scanner(System.in);

n=sc.nextInt();

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

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

{

if(i+j<=n+1)

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

else

System.out.print(" ");

}

System.out.println();

}

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

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

{

if(i>=j)

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

else

System.out.print(" ");

}

System.out.println();

}

}

}

Output:

4

1 2 3 4

1 2 3

1 2

1

1

1 2

1 2 3

1 2 3 4

21.

import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n,k;

n=sc.nextInt();

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

{

for(k=n; k>i; k--)

{

System.out.print(" ");

}

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

{

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

}

System.out.println(" ");

}

}

}

Output:

5

\*

\*

\* \*

\* \* \*

\* \* \* \*

25.

import java.util.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int i,j,n,k;

n=sc.nextInt();

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

{

for(k=n; k>i; k--)

{

System.out.print(" ");

}

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

{

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

}

System.out.println(" ");

}

}

}

Output:

5

\*

\*\*

\*\*\*

\*\*\*\*

\*\*\*\*\*

26.

#include <stdio.h>

void main()

{

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

//Scanner sc=new Scanner(System.in);

int n=5;

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

{

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

{

if(i >= j)

printf("\* ");

else

printf(" ");

}

printf("\n");

}

}

Output:

[?2004l

\*

\*

\* \*

\* \* \*

\* \* \* \*

[?2004h

27.

#include <stdio.h>

void main()

{

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

//Scanner sc=new Scanner(System.in);

int n=5;

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

{

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

{

if(i <= j)

printf("\* ");

else

printf(" ");

}

printf("\n");

}

}

Output:

[?2004l

\* \* \* \*

\* \* \*

\* \*

\*

\*

[?2004h

28.

#include <stdio.h>

void main()

{

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

//Scanner sc=new Scanner(System.in);

int n=5;

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

{

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

{

if(i != j)

printf("\* ");

else

printf(" ");

}

printf("\n");

}

}

Output:

[?2004l

\* \* \*

\* \* \*

\* \* \* \*

\* \* \* \*

\* \* \*

[?2004h

29.

#include <stdio.h>

void main()

{

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

//Scanner sc=new Scanner(System.in);

int n=5;

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

{

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

{

if(i + j >= n + 1)

printf("\* ");

else

printf(" ");

}

printf("\n");

}

}

Output:

[?2004l

\*

\*

\* \*

\* \* \*

\* \* \* \*

[?2004h

30.

#include <stdio.h>

void main()

{

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

//Scanner sc=new Scanner(System.in);

int n=5;

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

{

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

{

if(i + j <= n + 1)

printf("\* ");

else

printf(" ");

}

printf("\n");

}

}

Output:

[?2004l

\* \* \* \*

\* \* \*

\* \*

\*

\*

[?2004h

31.

#include <stdio.h>

void main()

{

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

//Scanner sc=new Scanner(System.in);

int n=5;

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

{

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

{

if(i + j <= n + 1)

printf("\* ");

else

printf(" ");

}

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

{

if(i + j <= n + 1)

printf("\* ");

else

printf(" ");

}

printf("\n");

}

}

Output:

[?2004l

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

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

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

\* \* \* \*

\*

[?2004h

32.

#include <stdio.h>

void main()

{

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

//Scanner sc=new Scanner(System.in);

int n=5;

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

{

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

{

if(i + j <= n + 1)

printf("\* ");

else

printf(" ");

}

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

{

if(i + j <= n + 1)

printf("\* ");

else

printf(" ");

}

printf("\n");

}

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

{

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

{

if(i + j <= n + 1)

printf("\* ");

else

printf(" ");

}

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

{

if(i + j <= n + 1)

printf("\* ");

else

printf(" ");

}

printf("\n");

}

}

Output:

[?2004l]

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

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

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

\* \* \* \*

\* \*

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

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

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

\* \* \* \*

\* \*

[?2004h.

#include <stdio.h>

void main()

{

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

//Scanner sc=new Scanner(System.in);

int n=5;

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

{

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

{

if(i >=j)

printf("\* ");

else

printf(" ");

}

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

{

if(i + j >= n + 1)

printf("\* ");

else

printf(" ");

}

printf("\n");

}

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

{

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

{

if(i + j <= n + 1)

printf("\* ");

else

printf(" ");

}

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

{

if(i <= j)

printf("\* ");

else

printf(" ");

}

printf("\n");

}

}

Output:

34.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n,i,j;

Scanner sc=new Scanner(System.in);

n=sc.nextInt();

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

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

{

if(i%2==1)

{

if(j%2==1)

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

else

System.out.print(" #");

}

else

{

if(j%2==1)

System.out.print(" #");

else

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

}

}

System.out.println(" ");

}

}

}

4

\* # \* #

# \* # \*

\* # \* #

# \* # \*

35. import java.util.Scanner;

public class Main

{

public static void main(String args[])

{

int n, i, j, space = 1;

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

Scanner s = new Scanner(System.in);

n = s.nextInt();

space = n - 1;

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

{

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

{

System.out.print(" ");

}

space--;

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

{

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

}

System.out.println("");

}

space = 1;

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

{

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

{

System.out.print(" ");

}

space++;

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

{

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

}

System.out.println("");

}

}}

Output:

Enter the number of rows: 4

\*

\*\*\*

\*\*\*\*\*

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

\*\*\*\*\*

\*\*\*

\*

36.

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.println("Enter the number of rows: ");

int rows = sc.nextInt();

for (int i= 0; i<= rows-1 ; i++)

{

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

{

System.out.print(" ");

}

for (int k=0; k<=rows-1-i; k++)

{

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

}

System.out.println();

}

sc.close();

}

}

Output:

Enter the number of rows:

4

\* \* \* \*

\* \* \*

\* \*

\*

37.

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.println("Enter the number of rows: ");

int rows = sc.nextInt();

for (int i= 0; i<= rows-1 ; i++)

{

for (int j=0; j<=i; j++) { System.out.print("\*"+ " "); } System.out.println(""); } for (int i=rows-1; i>=0; i--)

{

for(int j=0; j <= i-1;j++)

{

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

}

System.out.println("");

}

sc.close();

}

}

Output:

Enter the number of rows:

4

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \*

\* \*

\*

38.

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.println("Enter the number of rows: ");

int rows = sc.nextInt();

for (int i= 0; i<= rows-1 ; i++)

{

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

{

System.out.print(" ");

}

for (int k=i; k<=rows-1; k++) { System.out.print("\*" + " "); } System.out.println(""); } for (int i= rows-1; i>= 0; i--)

{

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

{

System.out.print(" ");

}

for (int k=i; k<=rows-1; k++)

{

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

}

System.out.println("");

}

sc.close();

}

}

Output:

Enter the number of rows:

4

\* \* \* \*

\* \* \*

\* \*

\*

\*

\* \*

\* \* \*

\* \* \* \*

39.

import java.util.\*;

class Main {

public static void main(String[] args) {

int n,i,j;

Scanner sc=new Scanner(System.in);

System.out.println("Enter value of n");

n=sc.nextInt();

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

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

{

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

{

System.out.print(" ");

}

else if(j==1 || j==n+1)//first colum & last column

{

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

}

else if(i==1 || i==n)//first row & last row

{

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

}

else

{

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

}

}

System.out.println();

}

}

}

Output:

Enter value of n

4

\* \* \*

\* 1 2 3 \*

\* 1 2 3 \*

\* \* \*

40.

import java.util.\*;

class Main{

public static void main(String[] args)

{

Scanner sc=new Scanner(System.in);

int ch=96;

int k=1,i,j,n;

n=sc.nextInt();

k=sc.nextInt();

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

{

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

{

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

}

System.out.println();

}

for(i=n-1;i>=1;i--)//row

{

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

{

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

}

System.out.println();

}

}

}

Output:

4

5

a

a b

a b c

a b c d

a b c

a b

a

41.

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.println("Enter the number of rows: ");

int rows = sc.nextInt();

for (int i= 0; i<= rows-1 ; i++)

{

for (int j=0; j<=i; j++) { System.out.print("\*"+ " "); } System.out.println(""); } for (int i=rows-1; i>=0; i--)

{

for(int j=0; j <= i-1;j++)

{

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

}

System.out.println("");

}

sc.close();

}

}

Output:

Enter the number of rows:

4

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \*

\* \*

\*

42. import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.println("Enter the number of rows: ");

int rows = sc.nextInt();

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

{

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

{

System.out.print(" ");

}

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

{

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

{

System.out.print(" ");

}

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

{

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

}

System.out.println("");

}

sc.close();

}

}

Output:

Enter the number of rows:

4

\*

\*\*

\*\*\*

\*\*\*\*

\*\*\*

\*\*

\*

43.

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.println("Enter the number of rows: ");

int rows = sc.nextInt();

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

{

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

System.out.print(" ");

}

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

if( k==1 || i == rows || k==(2\*i-1)) {

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

}

else {

System.out.print(" ");

}

}

System.out.println("");

}

sc.close();

}

}

Output:

Enter the number of rows:

5

Enter the number of rows:

5

\*

\* \*

\* \*

\* \*

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

44.

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.println("Enter the number of rows: ");

int rows = sc.nextInt();

for (int i=rows; i>= 1 ; i--)

{

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

System.out.print(" ");

}

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

if( k==1 || i == rows || k==(2\*i-1)) {

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

}

else {

System.out.print(" ");

}

}

System.out.println("");

}

sc.close();

}

}

Output:

Enter the number of rows:

5

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

\* \*

\* \*

\* \*

\*

45.

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.println("Enter the number of rows: ");

int rows = sc.nextInt();

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

System.out.print(" ");

}

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

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

{ System.out.print(" "); } if( i==1)

{ System.out.println(""); }

else { System.out.println("\*"); } } for (int i=rows-1; i>= 1 ; i--)

{

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

System.out.print(" ");

}

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

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

System.out.print(" ");

}

if( i==1)

System.out.println("");

else

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

}

sc.close();

}

}

Output:

Enter the number of rows:

5

\*

\* \*

\* \*

\* \*

\* \*

\* \*

\* \*

\* \*

\*

46.

import java.util.Scanner;

public class Main

{

public static void main(String[] args) {

for (int i = 1; i <= 4; i++)

{

int n = 4;

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

{ System.out.print(" "); } for (int k = i; k >= 1; k--)

{

System.out.print(k);

}

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

{ System.out.print(l); } System.out.println(); } for (int i = 3; i >= 1; i--)

{

int n = 3;

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

{ System.out.print(" "); } for (int k = i; k >= 1; k--)

{

System.out.print(k);

}

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

{

System.out.print(l);

}

System.out.println();

}

}

}

Output:

1

212

32123

4321234

32123

212

1

47. Accept n number from user & display prime upto n number

import java.util.Scanner;

public class Main {

public static void main(String[] args)

{

int n,n1,i,j,div=0;

Scanner sc = new Scanner(System.in);

System.out.println("enter range");

n1=sc.nextInt();

for(j=2;j<=n1;j++)//number n1=15(j=2<15) 3<15 4<15

{

n=j;//2 3 4

div=0;

for(i=2;i<=(n/2);i++)

{

if(n%i==0)

{

div=1;

break;

}

}

if(div==0)

{

System.out.print(" "+n);//2 3 5

}

}

}

}

Output:

enter range

50

2 3 5 7 11 13 17 19 23 29 31 37 41 43

48. Accept n number from user & display perfect upto n number

import java.util.Scanner;

public class Main {

public static void main(String[] args)

{

int n,n1,i,j,sum=0;

Scanner sc = new Scanner(System.in);

System.out.println("enter range");

n1=sc.nextInt();

for(j=2;j<=n1;j++)//number

{

n=j;//2 3 4 5 6

sum=0;

for(i=1;i<=(n/2);i++)

{

if(n%i==0)

{

sum=sum+i;

}

}

if(sum==n)

{

System.out.print(" "+n);//6

}

}

}

}

Output:

enter range

30

6 28

49. Series

sum=1X+2X+3X+.....

import java.util.Scanner;

public class Main {

public static void main(String[] args)

{

int n,x,i,j,sum=0;

Scanner sc = new Scanner(System.in);

System.out.println("enter no");

x=sc.nextInt();

n=sc.nextInt();

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

{

sum=sum+(i\*x);

}

{

System.out.print(" "+sum);//6

}

}

}

Output:

enter no

1 3

5

45

50. 1 + x + x^2/2! + x^3/3! + x^4/4! + x^n/n!

51. 1!+2!+#!+…..+n!

import java.util.Scanner;

public class Main {

public static void main(String[] args)

{

int i,j,n,f1,sum=0;

Scanner sc = new Scanner(System.in);

System.out.println("enter no");

n=sc.nextInt();

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

{

f1=1;

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

{

f1=f1\*j;

}

sum=sum+f1;

}

System.out.println(" "+sum);

}}

Output:

enter no

3

9

52.

import java.util.Scanner;

public class Main {

public static void main(String[] args)

{

int i,j,n,x,f1,sum=0;

Scanner sc = new Scanner(System.in);

System.out.println("enter no");

n=sc.nextInt();

x=sc.nextInt();

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

{

f1=1;

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

{

f1=f1\*x;

}

sum=sum+f1;

}

System.out.println(" "+sum);

}}

Output:

enter no

3

2

6

53.

import java.util.Scanner;

public class Main {

public static void main(String[] args)

{

int i,j,n,x,f1,sum=0;

Scanner sc = new Scanner(System.in);

System.out.println("enter no");

n=sc.nextInt();

x=sc.nextInt();

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

{

f1=1;

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

{

f1=f1\*i;

}

sum=sum+f1;

}

System.out.println(" "+sum);

}}

Output:

enter no

5

4

15

54. x^2/2! + x^4/4! – x^6/6! + + x^n/n!

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("Enter the value of x: ");

double x = sc.nextDouble();

System.out.print("Enter the value of n (even number): ");

int n = sc.nextInt();

if (n % 2 != 0) {

System.out.println("Please enter an even number for n.");

}

double sum = 0;

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

double term = 1;

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

term \*= x;

}

long factorial = 1;

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

factorial \*= j;

}

term /= factorial;

if ((i / 2) % 2 == 0) {

sum += term;

} else {

sum -= term;

}

}

System.out.println("The sum of the series is: " + sum);

}

}

Output:

Enter the value of x: 2.0

Enter the value of n (even number): 6

The sum of the series is: -1.4222222222222223

55. x^3/3! + x^5/5! – x^7/7! + x^n/n!

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter the value of x: ");

double x = scanner.nextDouble();

System.out.print("Enter the value of n (odd number): ");

int n = scanner.nextInt();

if (n % 2 == 0) {

System.out.println("Please enter an odd number for n.");

return;

}

double sum = 0;

for (int i = 3; i <= n; i += 2) {

double term = 1;

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

term \*= x;

}

long factorial = 1;

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

factorial \*= j;

}

term /= factorial;

if ((i / 2) % 2 == 0) {

sum += term;

} else {

sum -= term;

}

}

System.out.println("The sum of the series is: " + sum);

}

}

Output:

Enter the value of x: 1

Enter the value of n (odd number): 9

The sum of the series is: -0.15852899029982362

56. x^2/(2^2\*1!) + x^4/(2^4\*2!) – x^6/(2^6\*3!)