## Print Prime Numbers in a range

A prime number is divisible only by 1 and itself. You are given a positive integer. Write an algorithm to find all the prime numbers from 2 to the given positive number

**Input Format**

The input consists of an integer.

**Constraints**

1 < n< 109

**Output Format**

Print space-separated integers representing the prime numbers till the given positive number.

**Sample Input 0**

**11**

**Sample Output 0**

**2 3 5 7 11**

**//SOURCE CODE**

import java.io.\*;

import java.util.\*;

public class Solution {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int n=sc.nextInt();

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

int sum=0;

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

{

if (i%j==0){

sum++;

break;

}

}

if (sum==0)

{

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

}

}

}

}

## Amoeba Multiplication

The Research team led by Bernadette Wolowitz at Cal-tech University has discovered a new Amoeba that grows in the order of a Fibonacci series every month. They are exhibiting this amoeba at a national conference. They want to know the size of the amoeba at a particular time instant. If a particular month’s index is given, write a program to display the amoeba’s size.

For Example, the size of the amoeba in months 1, 2, 3, 4, 5, 6,... will be 0, 1, 1, 2, 3, 5, 8.... respectively.

**Input Format**

The input is an integer that denotes the count of the month.

**Constraints**

NA

**Output Format**

The output is an integer denoting the amoeba size.

**Sample Input 0**

13

**Sample Output 0**

**144**

**//SOURCE CODE**

**import java.io.\*;**

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

**public class Solution {**

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

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

**int month=sc.nextInt();**

**int n1=0,n2=1,n3=0;**

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

**{**

**n3=n1+n2;**

**n1=n2;**

**n2=n3;**

**}**

**System.out.print(n3);**

**}**

**}**

## Hollow square pattern

Write a program to print the hollow square pattern.

**Input Format**

Input consists of one integer that corresponds to the number of rows and columns.

**Constraints**

NA

**Output Format**

Output prints the hollow square pattern for the given number of rows and columns.

**Sample Input 0**

5

//SOURCE CODE

import java.io.\*;

import java.util.\*;

public class Solution {

public static void main(String[] args) {

Scanner sc=new Scanner (System.in);

int num=sc.nextInt();

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

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

if(i==1||i==num||j==1||j==num){

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

}

else

{

System.out.print(" ");

}

}

System.out.println();

}

}

}