* Write a program to calculate the factorial of a given number.

**Code:**

  int i,fact=1,number;

       print("Enter any Number: ");

       number = int.parse(stdin.readLineSync()!);

       for(i=1;i<=number;i++){

        fact=fact\*i;

       }

       print("Factorial of " +number.toString()+" is: "+ fact.toString());

* Write a program to make such a pattern like a pyramid with a number which will repeat the number in the same row.

1.

2 2

3 3 3

4 4 4 4

**Code:**

int count = 4;

  for (var i = 1; i <= count; i++) {

    if (i == 1) {

      print(i);

    }

    else if (i == 2) {

      print("$i $i");

    }

    else if (i == 3) {

      print("$i $i $i");

    }

    else if (i == 4) {

      print("$i $i $i $i");

    }

  }

* Write a program to find out the sum of series.

Test Data:

The Sum of series is:

1 + 5 + 9 + 13 + 17 + 21 + 25 + 29 + 33 + 37 = 190

**Code:**

int add = 0;

  var list1 = [1, 5, 9, 13, 17, 21, 25, 29, 33, 37];

  for (var i = 0; i < list1.length; i++) {

    add = add + list1[i];

  }

  print("Addition: ${add}");

* Write a program to find majority element of an array.

The given array is: 1 3 3 7 4 3 2 3 3.

**Code:**

List<int> arr =[1,3,3,7,4,3,2,3,3];

 int maxCount = 0;

        int index = -1; *// sentinels*

        for (int i = 0; i < arr.length; i++) {

            int count = 0;

            for (int j = 0; j < arr.length; j++) {

                if (arr[i] == arr[j])

                    count++;

            }

            if (count > maxCount) {

                maxCount = count;

                index = i;

            }

        }

        if (maxCount > arr.length / 2)

            print(arr[index]);

        else

            print("No Majority Element");