

/*1. Write a typescript program which contains one function named as Maximum. That function accepts array of numbers and returns the largest number from array.

Input :

23

89

6

29

56

45

77

32

Output :

Maximum number is 89

*/

```
function Maximum(arr:number[]):number{
    var max:number = arr[0];
    for(var i=1; i<arr.length; i++){
        if(max < arr[i]){
            max = arr[i];
        }
    }
    return max;
}
//var arr1:number[] = new Array(3);
//arr1= [23,89,20];
var arr1:number[] = [23,89,6,29,56,45,77,32];

console.log("Maximum number is "+Maximum(arr1));
```

Output:-

```
intouch@intouch-ThinkCentre-M71e: ~/Desktop/Angular/assignments/2_assignment
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/1_assignment$ cd ..
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments$ ls
1_assignment  2_assignment
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments$ cd 2_assignment/
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ ls
1_prog.js  1_prog.ts  2_prog.js  2_prog.ts  3_prog.js  3_prog.ts  4_prog.js  4_prog.ts  5_prog.js  5_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 1_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 1_prog.js
Maximum number is 89
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$
```

/*2. Write a typescript program which contains one function named as Summation. That function accepts array of numbers and returns the summation of each number from array.

Input :

23

6

7

4

5

7

Output :

Addition is 52

*/

```
function Summation(arr:number[]):number{
    var sum:number = 0;
    for(var i=0; i<arr.length; i++){
        sum = sum + arr[i];
    }
    return sum;
}
```

```
//var arr1:number[] = new Array(3);
```

```
//arr1= [23,89,20];
```

```
var arr1:number[] = [23,6,7,4,5,7];
```

```
console.log("Addition is "+Summation(arr1));
```

Output:-

```
intouch@intouch-ThinkCentre-M71e: ~/Desktop/Angular/assignments/2_assignment
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/1_assignment$ cd ..
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments$ ls
1_assignment 2_assignment
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments$ cd 2_assignment/
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ ls
1_prog.js 1_prog.ts 2_prog.js 2_prog.ts 3_prog.js 3_prog.ts 4_prog.js 4_prog.ts 5_prog.js 5_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 1_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 1_prog.js
Maximum number is 89
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 2_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 2_prog.js
Addition is 52
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$
```

/*3. Write a typescript program which contains one function named as Maximum. That function accepts array of numbers and returns the second largest number from array.

Input :

23
89
6
29
56
45
77
32

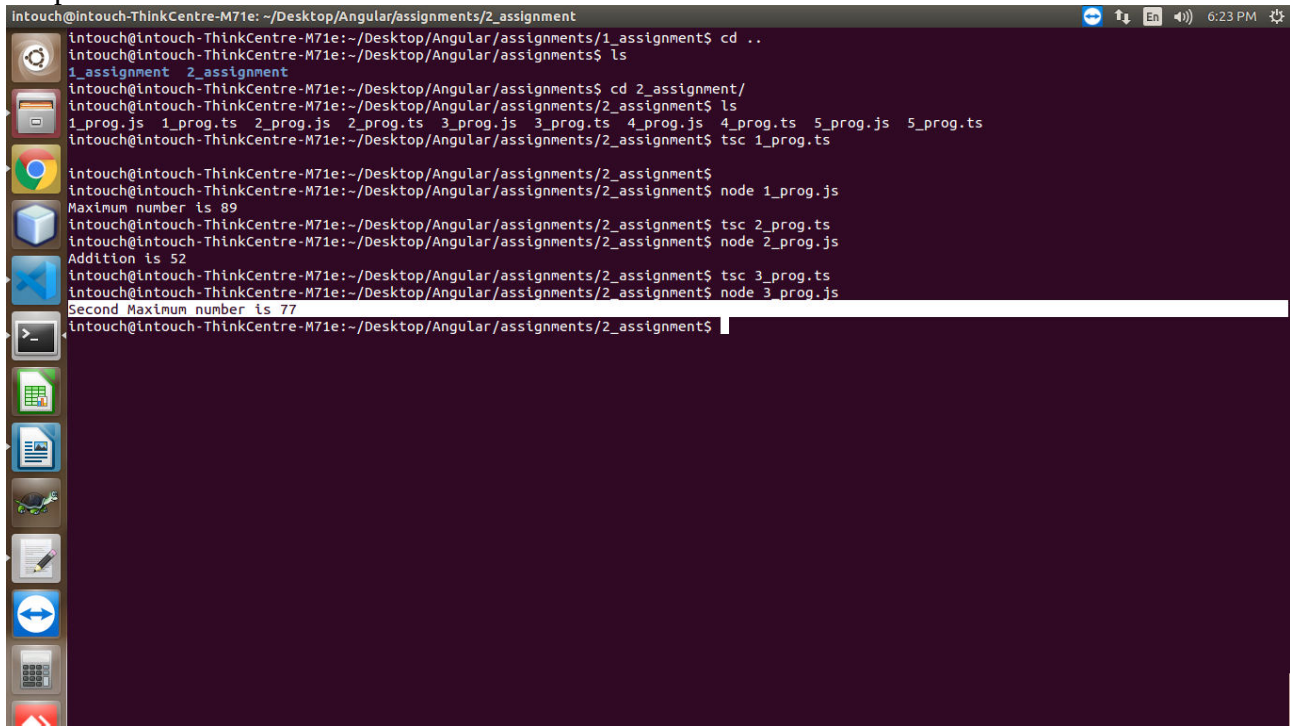
Output : Second Maximum number is 77 */

```
function Maximum(arr:number[]):number{
    var max:number = arr[0];
    var secondmax:number = arr[0];
    for(var i=0; i<arr.length; i++){
        if (arr[i] > max) {
            secondmax = max;
            max = arr[i];

        } else if (arr[i] > secondmax) {
            secondmax = arr[i];
        }
    }
    return secondmax;
}
```

```
var arr1:number[] = [23,89,6,29,56,45,77,32];
console.log("Second Maximum number is "+Maximum(arr1));
```

Output:-



```
intouch@intouch-ThinkCentre-M71e: ~/Desktop/Angular/assignments/2_assignment
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/1_assignment$ cd ..
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments$ ls
1_assignment 2_assignment
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments$ cd 2_assignment/
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ ls
1_prog.js 1_prog.ts 2_prog.js 2_prog.ts 3_prog.js 3_prog.ts 4_prog.js 4_prog.ts 5_prog.js 5_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 1_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 1_prog.js
Maximum number is 89
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 2_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 2_prog.js
Addition is 52
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 3_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 3_prog.js
Second Maximum number is 77
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$
```

/*4. Write a typescript program which contains one arrow function named as ChkArmstrong. That function accepts one numbers and check whether number is Armstrong number or not.

Input :

153

Output :

It is Armstrong number

*/

```
function ChkArmstrong(num:number){
    var arm:number=0,a:number,temp:number;
    temp=num;

    while(temp>0){
        a=temp%10;
        // temp=parseInt(temp/10); // convert float into Integer
        temp=Math.floor(temp/10);
        arm=arm+a*a*a;
    }

    if(arm==num){
        console.log("It is Armstrong number");
    }
    else{
        console.log("It is Not Armstrong number");
    }
}
ChkArmstrong(153);
```

Output:-

```
intouch@intouch-ThinkCentre-M71e: ~/Desktop/Angular/assignments/2_assignment
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/1_assignment$ cd ..
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments$ ls
1_assignment 2_assignment
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments$ cd 2_assignment/
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ ls
1_prog.js 1_prog.ts 2_prog.js 2_prog.ts 3_prog.js 3_prog.ts 4_prog.js 4_prog.ts 5_prog.js 5_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 1_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 1_prog.js
Maximum number is 89
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 2_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 2_prog.js
Addition is 52
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 3_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 3_prog.js
Second Maximum number is 77
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 4_prog.ts
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 4_prog.js
It is Armstrong number
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$
```

/*5. Write a typescript program which contains one function named as ChkString. That function accept

one string and check whether that string contains “Marvellous” word or not.

Input :

“Pune Kothrud Marvellous Infosystems”

Output :

String contains Marvellous in it.

*/

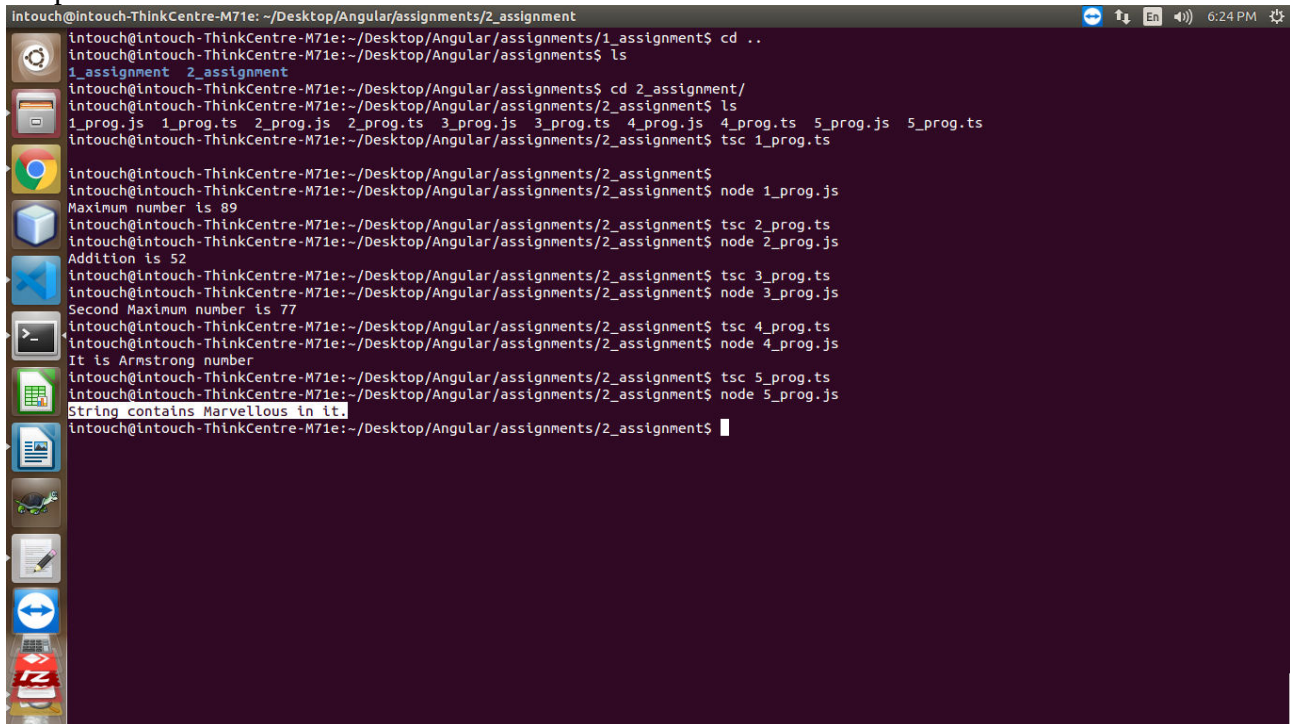
```
function ChkString(str:string){
    var str2 = "Marvellous";
    var strlen = str.length;
    var str2len = str2.length;
    // console.log(str2len);

    for(var i=0; i<=strlen-str2len ;i++){
        var j;
        for(j=0; j<str2len; j++)
            if (str[i + j] != str2[j])
                break;

        if (j == str2len) {
            // return j;
            console.log("String contains Marvellous in it.");
        }
    }
}
```

```
var str1 = "Pune Kothrud Marvellous Infosystems";  
ChkString(str1);
```

Output:-



```
intouch@intouch-ThinkCentre-M71e: ~/Desktop/Angular/assignments/2_assignment  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/1_assignment$ cd ..  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments$ ls  
1_assignment 2_assignment  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments$ cd 2_assignment/  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ ls  
1_prog.js 1_prog.ts 2_prog.js 2_prog.ts 3_prog.js 3_prog.ts 4_prog.js 4_prog.ts 5_prog.js 5_prog.ts  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 1_prog.ts  
  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 1_prog.js  
Maximum number is 89  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 2_prog.ts  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 2_prog.js  
Addition is 52  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 3_prog.ts  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 3_prog.js  
Second Maximum number is 77  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 4_prog.ts  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 4_prog.js  
It is Armstrong number  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ tsc 5_prog.ts  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$ node 5_prog.js  
String contains Marvellous in it.  
intouch@intouch-ThinkCentre-M71e:~/Desktop/Angular/assignments/2_assignment$
```