Problem 1: Find maximum number from an array

```
function Maximum(array: number[]): number {
    var max: number = array[0];
    for (var i: number = 0; i < array.length; ++i) {
        if (array[i] > max) {
            max = array[i]
        }
    }
    return max;
}
//input
var numbers: number[] = [23, 89, 6, 29, 56, 45, 77, 32];
//Function call
console.log('Maximum number is ' + Maximum(numbers));
```

Output:

```
Maximum number is 89
```

Problem 2: Find out Second largest from an array

```
//Function defination
function Maximum(array: number[]): number {
    var descendingArray: number[] = array.sort().reverse();
    return descendingArray[1];
}
//input
var number: number[] = [23, 89, 6, 29, 56, 45, 77, 32];
//function call
console.log('Second maximum number is ' + Maximum(number));
```

Output:

```
C:\Users\swapn\Desktop\MEAN\Typescript\Assignment2>node SecondLargest.js
Second maximum number is 77
```

Problem 3: Summation of all numbers of an array

```
//Function defination
function Summation(array: number[]): number {
    var sum: number = 0;
    for (var i: number = 0; i < array.length; ++i) {
        sum += array[i];
    }
    return sum;
}
//Input
var numbers: number[] = [23, 6, 7, 4, 5, 7];

//Function call
console.log('Addition is ' + Summation(numbers));
```

Output :

```
Addition is 52
```

Problem 4 : Arrow function to check Armstrong number

```
//function defination
var ChkArmstrong = function (value) {
    var length = value.toString().length;
    var sum = 0;
    var temp = value;
```

```
    while (temp > 0) {
        var remainder = temp % 10;
        sum += (Math.pow(remainder, length));
        temp = parseInt((temp / 10).toString());
    }
    if (value == sum) {
        console.log('It is Armstrong number.' + value);
    }
    else {
        console.log('It is not Armstrong number.' + value);
    }
};
//input
var value = 153;
//Function call
ChkArmstrong(value);
```

Output:

```
It is Armstrong number.153
```

Problem 5 : Check word in string

```
//Function defination
function ChkString(name: string): void {
    if (name.indexOf("Marvellous") >= 0) {
        console.log('String contains Marvellous in it.');
    }
}
//Input
```

```
var sentence: string = 'Pune Kothrud Marvellous Inforsystem';

ChkString(sentence);
```

Output :