

```
// Problem Statements: Write a typescript program which contains one
function named as maximum.
// That function accepts three parameters and it should returns largest
value from three input parameters.
// Input: 23 89 6
// Output: The maximum number is : 89

function findMaximumNumber(num1 : number, num2 : number, num3 : number)
: number
{
    if((num1 >= num2) && (num1 >= num3))
    {
        return num1;
    }
    else if((num2 >= num1) && (num2 >= num3))
    {
        return num2;
    }
    else
    {
        return num3;
    }
}

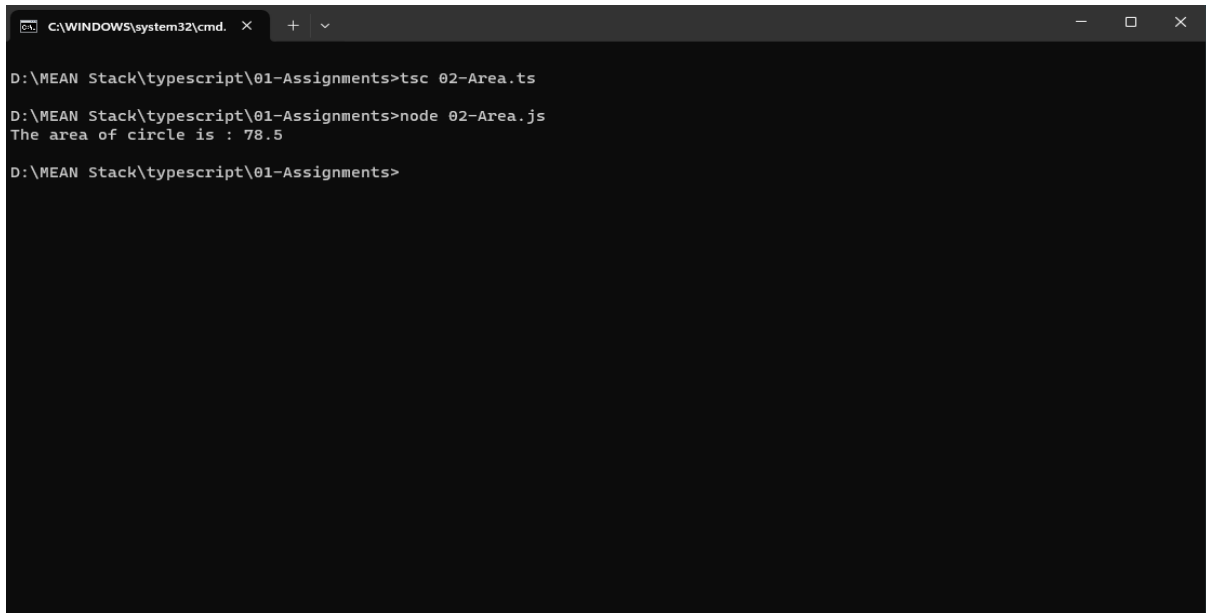
var num1 : number = 23;
var num2 : number = 89;
var num3 : number = 6;
var maximumNumber : number;
maximumNumber = findMaximumNumber(num1, num2, num3);
console.log("The maximum number is : " + maximumNumber);
```

```
C:\WINDOWS\system32\cmd. x + v
D:\MEAN Stack\typescript\01-Assignments>tsc 01-FindMaxNumber.ts
D:\MEAN Stack\typescript\01-Assignments>node 01-FindMaxNumber.js
The maximum number is : 89
D:\MEAN Stack\typescript\01-Assignments>|
```

```
// Write a typescript program which contains one function named as
Area. That function should calculate area of circle.
// Accept value of radius from user and return its area.
// Default value of PI should be 3.14 if it is not provided by the
caller.
// Input: 5
// Output: Area of circle is 78.5

function areaOfCircle(radius : number, pi : number = 3.14) : number
{
    if(radius > 0)
    {
        area = pi * radius * radius;
    }
    return area;
}

var radius : number = 5;
var area : number = 0.0;
area = areaOfCircle(radius);
console.log("The area of circle is : " +area);
```



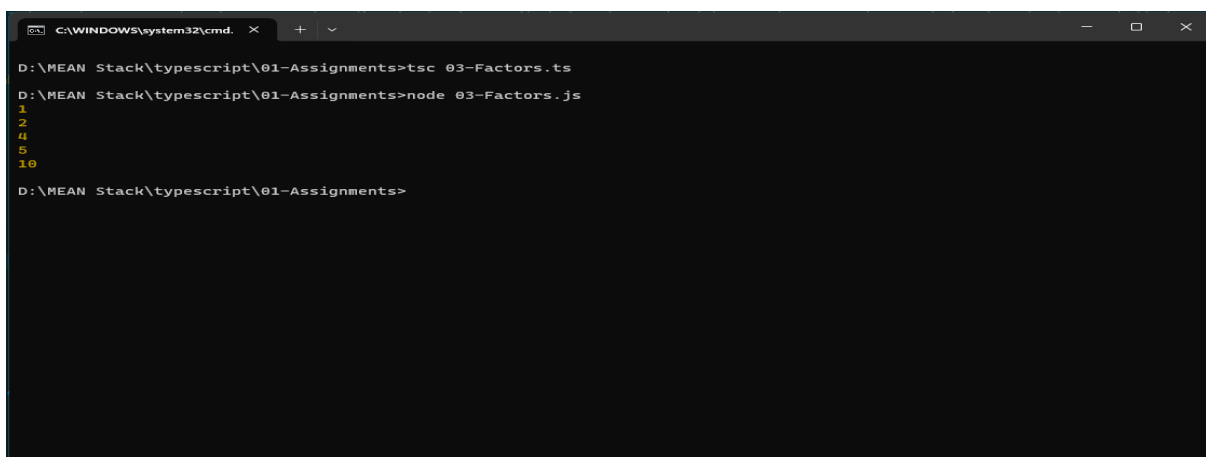
```
C:\WINDOWS\system32\cmd. x + v
D:\MEAN Stack\typescript\01-Assignments>tsc 02-Area.ts
D:\MEAN Stack\typescript\01-Assignments>node 02-Area.js
The area of circle is : 78.5
D:\MEAN Stack\typescript\01-Assignments>
```

```
// Write a typescript program which contains one function named
DisplayFactors. That function should accept one number and display
factors of that number.
// Input: 20
// Output: 1 2 4 5 10

function DisplayFactors(No : number) : number[]
{
    var iCnt = 0;
    var jCnt = 0;
    var array : number[] = [];

    for(iCnt = 1; iCnt <= No / 2; iCnt++)
    {
        if(No % iCnt == 0)
        {
            array[jCnt] = iCnt;
            jCnt++;
        }
    }
    return array;
}

var No : number = 20;
var i : number = 0;
var arr : number[] = DisplayFactors(No);
var size : number = arr.length;
for(i = 0; i < size; i++)
{
    console.log(arr[i]);
}
```



The screenshot shows a Windows command prompt window with the following text:

```
C:\WINDOWS\system32\cmd. X + | v
D:\MEAN Stack\typescript\01-Assignments>tsc 03-Factors.ts
D:\MEAN Stack\typescript\01-Assignments>node 03-Factors.js
1
2
4
5
10
D:\MEAN Stack\typescript\01-Assignments>
```

The output of the program is displayed as a list of factors: 1, 2, 4, 5, and 10.

```
// Write a typescript program which contains one function named
CheckPrime.
// That function should accept one number and it should return true if
the given number is prime and otherwise return false.
// Input: 11
// Output: It is a prime number.

function CheckPrime(No : number) : boolean
{
    var iCnt : number;

    for(iCnt = 2; iCnt <= No / 2; iCnt++)
    {
        if(No % iCnt == 0)
        {
            return false;
        }
    }

    return true;
}

var iNo : number = 73;
var isPrime : boolean = false;

isPrime = CheckPrime(iNo);

if(isPrime)
{
    console.log("The given number is a prime number!...");
}
else
{
    console.log("The given number is not a prime number!...");
}
```

```
C:\WINDOWS\system32\cmd. X + v
D:\MEAN Stack\typescript\01-Assignments>tsc 04-CheckPrime.ts
D:\MEAN Stack\typescript\01-Assignments>node 04-CheckPrime.js
The given number is a prime number!...
D:\MEAN Stack\typescript\01-Assignments>
```

```
// Write a typescript program which contains one function named  
Fibonacci. That function accepts one number from the user and prints  
the Fibonacci series till that number.  
// Input: 21  
// Output: 1 1 2 3 5 8 13 21  
  
function FibonacciSeries(No : number) : number[]  
{  
    var sum : number = 0;  
    var num1 : number = 0;  
    var num2 : number = 1;  
    var iCnt : number = 0;  
    var array : number[] = [];  
  
    while(sum <= No)  
    {  
        array[iCnt] = num2;  
        iCnt++;  
        sum = num1 + num2;  
        num1 = num2;  
        num2 = sum;  
    }  
    return array;  
}
```

```
var No : number = 21;
var arr : number[];
var iCnt : number;

arr = FibonacciSeries(No);
var size : number = arr.length;

for(iCnt = 0; iCnt < size; iCnt++)
{
    console.log(arr[iCnt]);
}
```

```
C:\WINDOWS\system32\cmd. x + v
D:\MEAN Stack\typescript\01-Assignments>tsc 05-Fibonacci.ts
D:\MEAN Stack\typescript\01-Assignments>node 05-Fibonacci.js
1
1
2
3
5
8
13
21
D:\MEAN Stack\typescript\01-Assignments>|
```