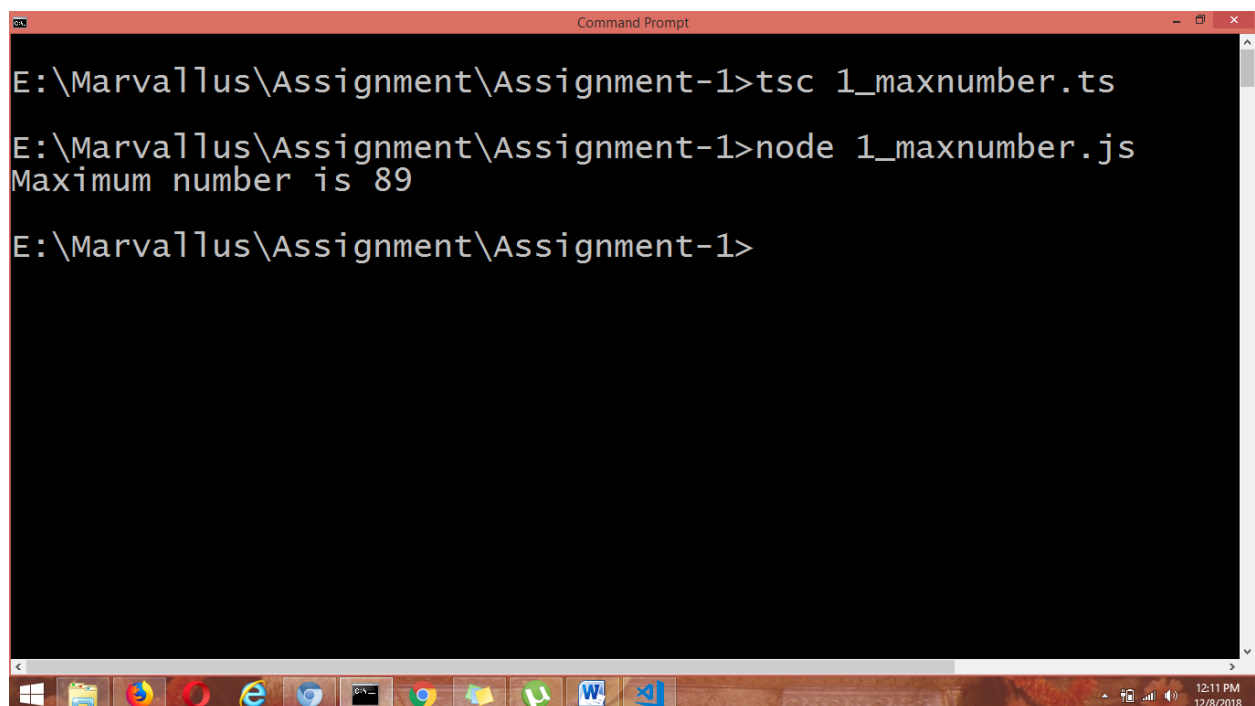


1.

```
function maximum(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 max:number = maximum(23, 89, 6)  
console.log("Maximum number is " + max)
```

O/P :



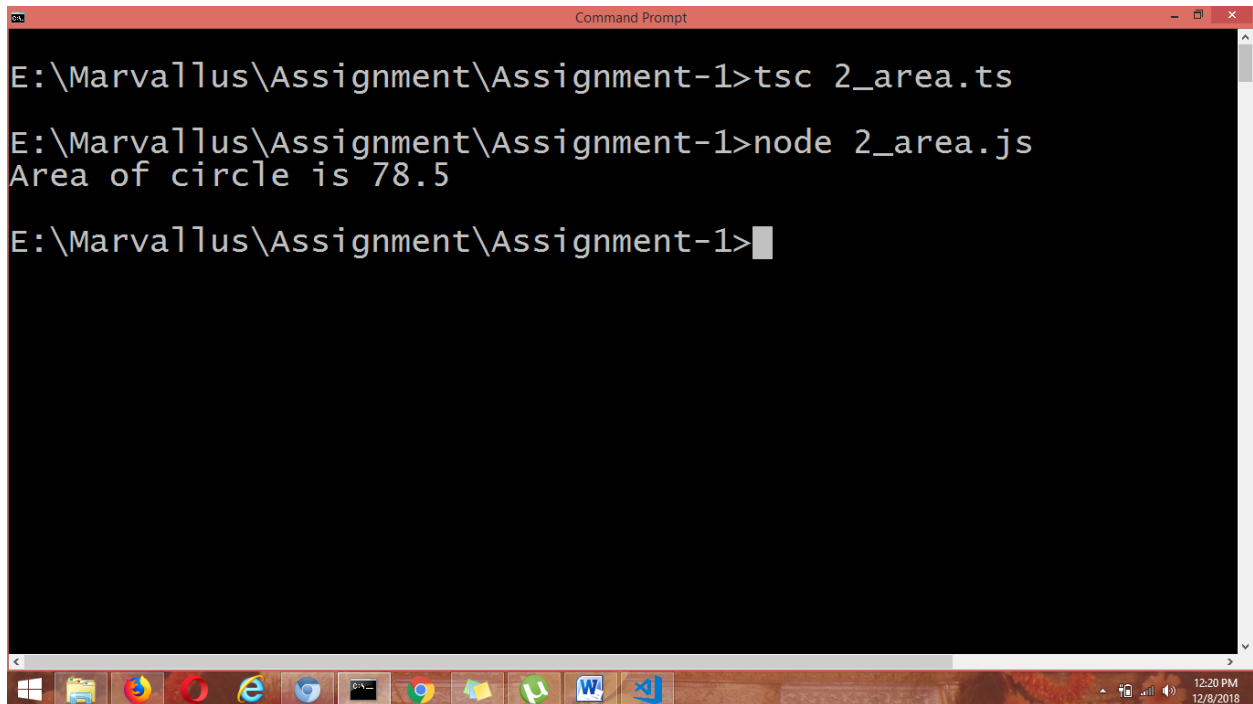
The screenshot shows a Windows Command Prompt window titled "Command Prompt". The user is in the directory "E:\Marvallus\Assignment\Assignment-1". They have run the command "tsc 1\_maxnumber.ts" to compile the TypeScript file. Then, they ran "node 1\_maxnumber.js" to execute the compiled JavaScript file. The output of the program is "Maximum number is 89". The Windows taskbar is visible at the bottom, showing various application icons and the system clock indicating 12:11 PM on 12/8/2018.

```
E:\Marvallus\Assignment\Assignment-1>tsc 1_maxnumber.ts  
E:\Marvallus\Assignment\Assignment-1>node 1_maxnumber.js  
Maximum number is 89  
E:\Marvallus\Assignment\Assignment-1>
```

2.

```
function area(r:number, PI:number=3.14){  
    var area:number;  
    area = PI * r * r;  
    return area;  
}  
  
var area_circle = area(5);  
console.log("Area of circle is "+area_circle);
```

o/p:



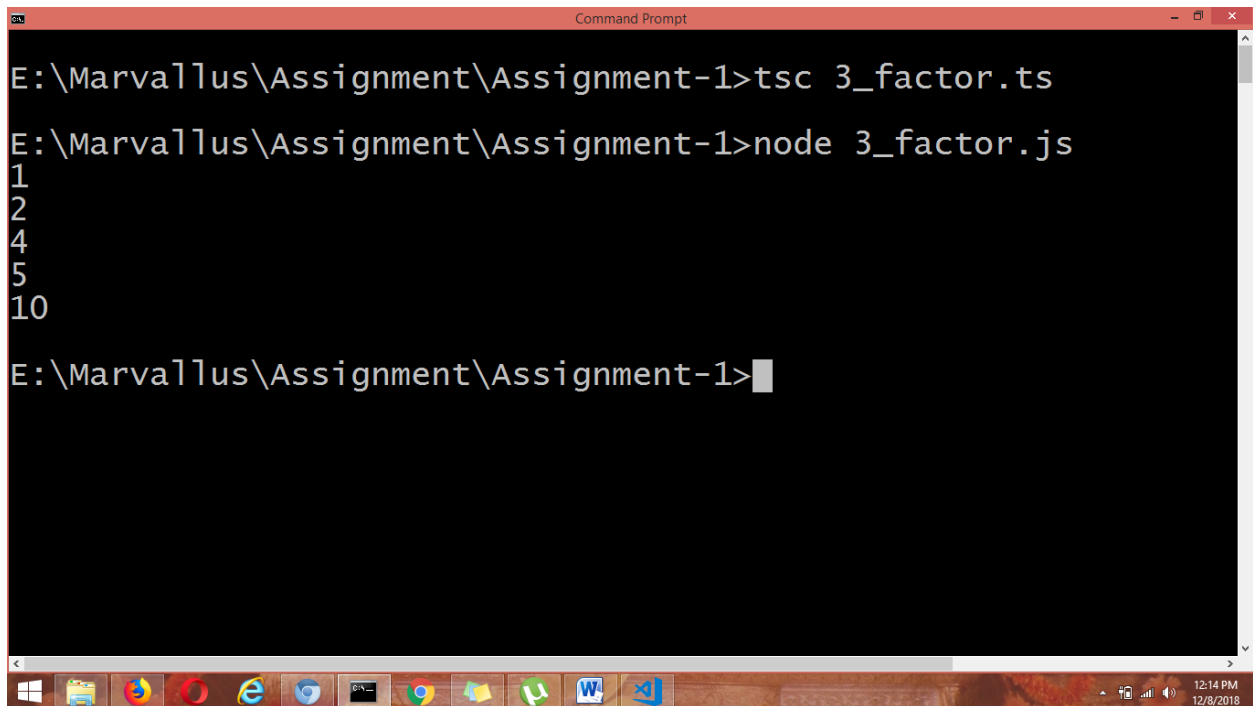
```
Command Prompt  
E:\Marvallus\Assignment\Assignment-1>tsc 2_area.ts  
E:\Marvallus\Assignment\Assignment-1>node 2_area.js  
Area of circle is 78.5  
E:\Marvallus\Assignment\Assignment-1>
```

The screenshot shows a Windows Command Prompt window with a red title bar. The window title is "Command Prompt". The command history shows the user running 'tsc 2\_area.ts' to compile the TypeScript file, followed by 'node 2\_area.js' to execute the JavaScript file. The output of the execution is "Area of circle is 78.5". The prompt is currently at 'E:\Marvallus\Assignment\Assignment-1>'. The Windows taskbar is visible at the bottom, showing various application icons and the system clock indicating 12:20 PM on 12/8/2018.

3.

```
function display_factors(num:number){  
    var i:number = 1  
    var n:number = num / 2  
    while(i <= n ){  
        if (num%i == 0)  
            console.log(i)  
        i++  
    }  
}  
  
display_factors(20)
```

o/p:



The screenshot shows a Windows Command Prompt window titled "Command Prompt". The user is in the directory "E:\Marvallus\Assignment\Assignment-1". They have run the command "tsc 3\_factor.ts" to compile the TypeScript file into JavaScript. Then, they have run "node 3\_factor.js" to execute the JavaScript file. The output of the program is displayed on the screen: "1", "2", "4", "5", and "10", each on a new line. The Windows taskbar is visible at the bottom of the screen, showing various application icons and the system clock indicating 12:14 PM on 12/8/2018.

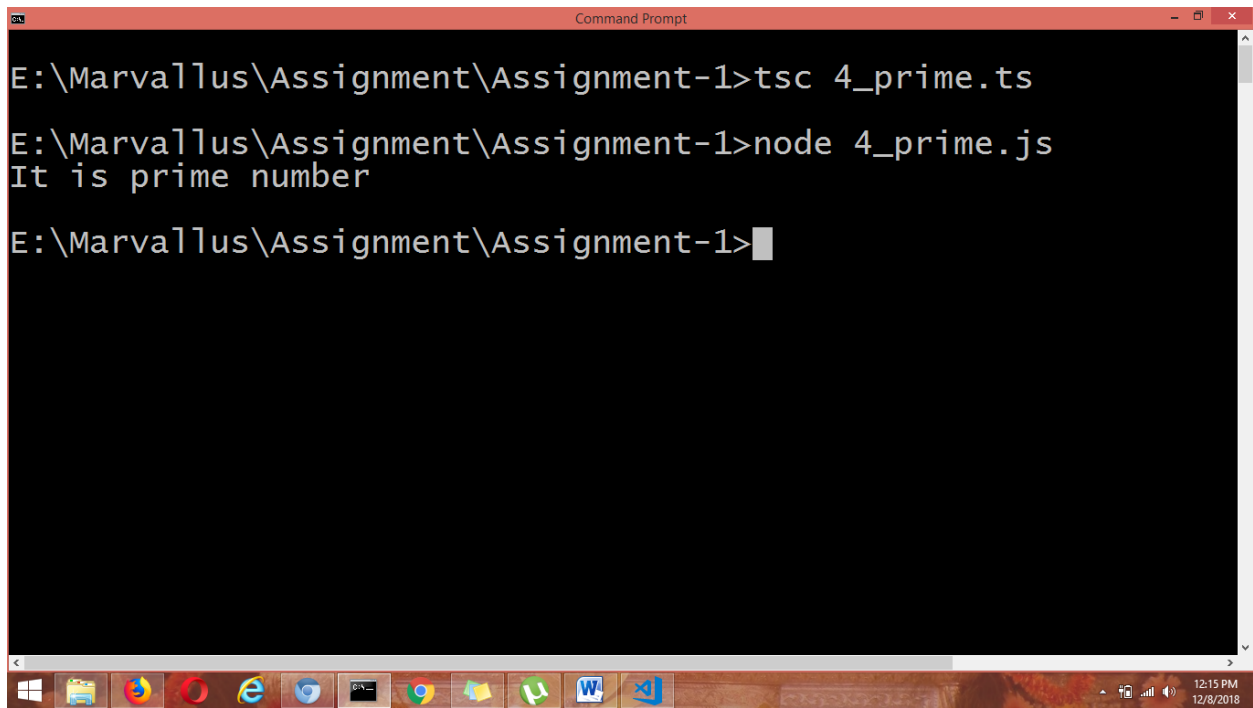
```
Command Prompt  
E:\Marvallus\Assignment\Assignment-1>tsc 3_factor.ts  
E:\Marvallus\Assignment\Assignment-1>node 3_factor.js  
1  
2  
4  
5  
10  
E:\Marvallus\Assignment\Assignment-1>
```

4.

```
function prime(num:number):boolean{
    var i:number = 2
    while(i <= num ){
        if(num%i == 0)
            break
        i++
    }
    if(i == num)
        return true
    else
        return false
}

var n:boolean = prime(11)
if(n)
    console.log("It is prime number")
else
    console.log("It is not prime number")
```

o/p:



```
Command Prompt

E:\Marvallus\Assignment\Assignment-1>tsc 4_prime.ts

E:\Marvallus\Assignment\Assignment-1>node 4_prime.js
It is prime number

E:\Marvallus\Assignment\Assignment-1>
```

The screenshot shows a Windows Command Prompt window with a red title bar. The window title is "Command Prompt". The command prompt shows the following sequence of commands and output:

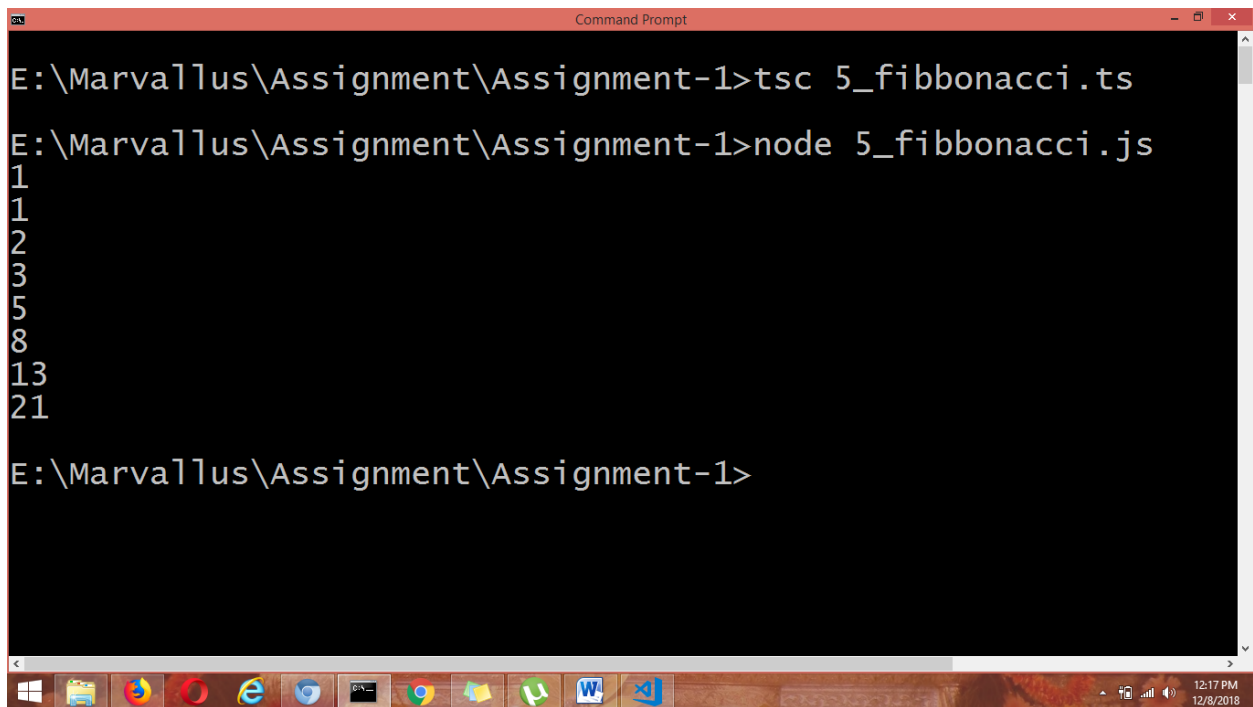
- Command: `E:\Marvallus\Assignment\Assignment-1>tsc 4_prime.ts`
- Command: `E:\Marvallus\Assignment\Assignment-1>node 4_prime.js`
- Output: `It is prime number`
- Command: `E:\Marvallus\Assignment\Assignment-1>` (with a cursor)

The Windows taskbar is visible at the bottom of the screen, showing various application icons and the system clock indicating 12:15 PM on 12/8/2018.

5.

```
function display_fibonacci(num:number){  
    var a:number = 0  
    var b:number = 1  
    while(b <= num ){  
        console.log(b)  
        b = a + b  
        a = b - a  
    }  
}  
  
display_fibonacci(21)
```

o/p:



The screenshot shows a Windows Command Prompt window titled "Command Prompt". The user is in the directory "E:\Marvallus\Assignment\Assignment-1". They run the command "tsc 5\_fibonacci.ts" to compile the TypeScript file into JavaScript. Then, they run "node 5\_fibonacci.js" to execute the JavaScript file. The output of the program is displayed as a list of numbers: 1, 1, 2, 3, 5, 8, 13, and 21. The prompt then returns to "E:\Marvallus\Assignment\Assignment-1>". The Windows taskbar is visible at the bottom, showing various application icons and the system clock indicating 12:17 PM on 12/8/2018.

```
Command Prompt  
E:\Marvallus\Assignment\Assignment-1>tsc 5_fibonacci.ts  
E:\Marvallus\Assignment\Assignment-1>node 5_fibonacci.js  
1  
1  
2  
3  
5  
8  
13  
21  
E:\Marvallus\Assignment\Assignment-1>
```