Algoritmo III

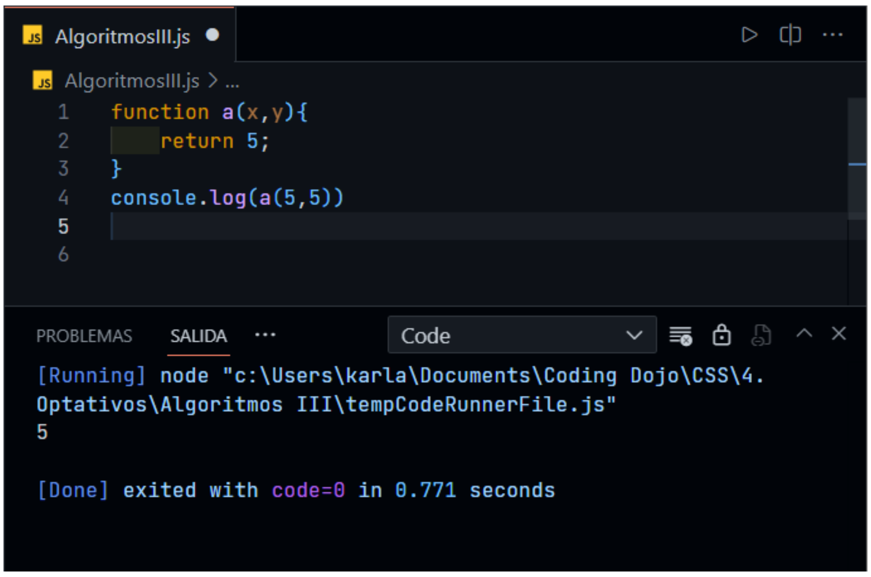
Tags	CSS & CSS3 Opcional Práctico
Status	Done

```
function a(x,y){
  return 5;
}
console.log(a(5,5))
```

var	value
x	5
y	5

Output esperado: 5

Output de la consola:



```
function a(x,y){
    return 5;
}
console.log(a(5,5))
```

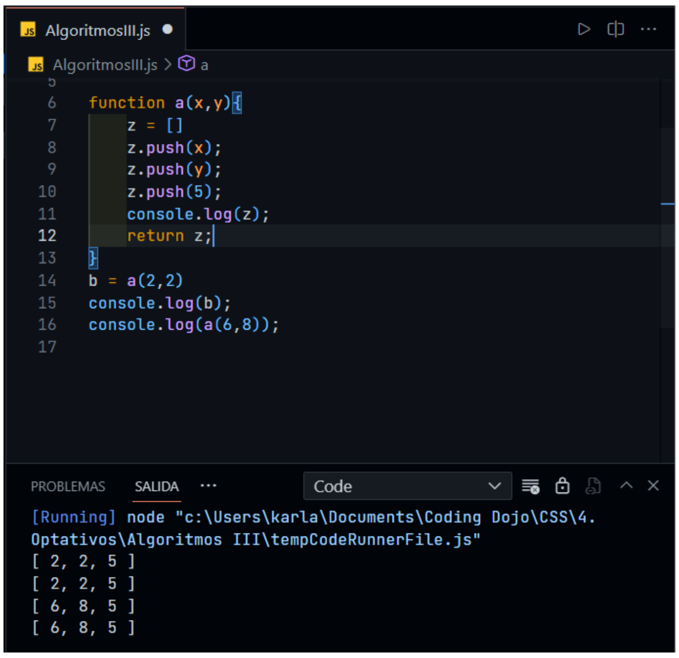
```
[Running] node "c:\Users\karla\Documents\Coding Dojo\CSS\4.
Optativos\Algoritmos III\tempCodeRunnerFile.js"
5

[Done] exited with code=0 in 0.771 seconds
```

```
function a(x,y){
    z = []
    z.push(x);
    z.push(y);
    z.push(5);
    console.log(z);
    return z;
}
b = a(2,2)
console.log(b);
console.log(a(6,8));
```

var	value
x	2 ⇒ 6
y	2 ⇒ 8
z	[2, 2, 5] ⇒ [6, 8, 5]

Output esperado: [2, 2, 5] [2, 2, 5] [6, 8, 5] [6, 8, 5]

Output de la consola



```
function a(x,y){
    z = []
    z.push(x);
    z.push(y);
    z.push(5);
    console.log(z);
    return z;
}
b = a(2,2)
console.log(b);
console.log(a(6,8));
```

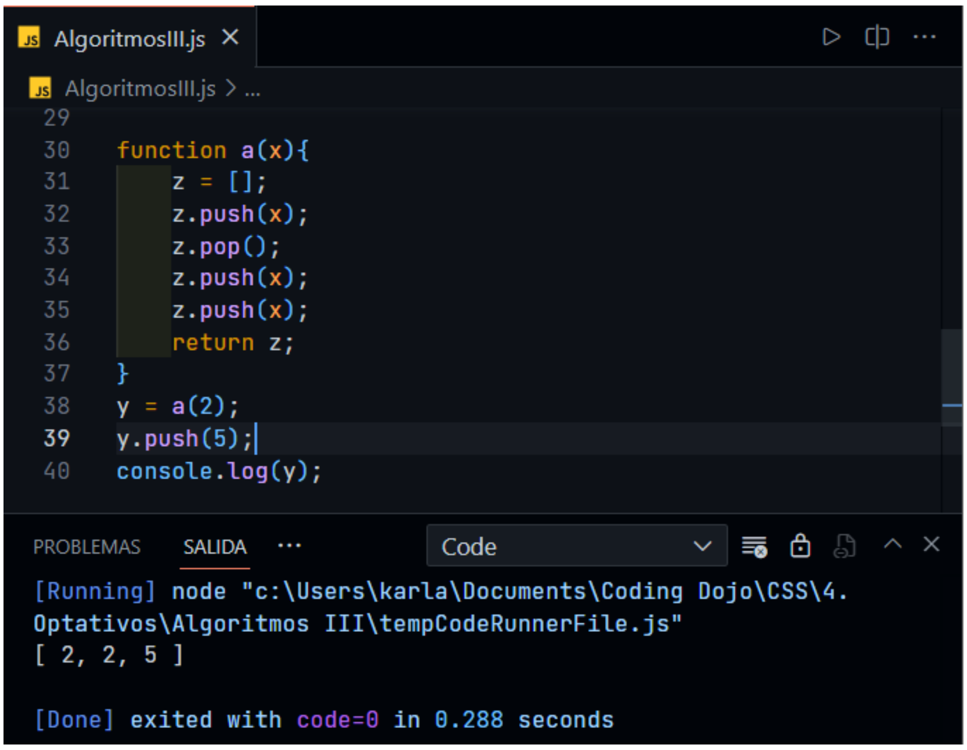
```
[Running] node "c:\Users\karla\Documents\Coding Dojo\CSS\4.
Optativos\Algoritmos III\tempCodeRunnerFile.js"
[ 2, 2, 5 ]
[ 2, 2, 5 ]
[ 6, 8, 5 ]
[ 6, 8, 5 ]
```

```
function a(x){
   z = [];
   z.push(x);
   z.pop();//quita el ultimo num de arr
   z.push(x);
   z.push(x);
   return z;
}
y = a(2);
y.push(5);
console.log(y);
```

var	value
z	[2, 2, 5]

Output esperado: [2,2,5]

Output de la consola:



```
function a(x){
    z = [];
    z.push(x);
    z.pop();
    z.push(x);
    z.push(x);
    return z;
}
y = a(2);
y.push(5);
console.log(y);
```

```
[Running] node "c:\Users\karla\Documents\Coding Dojo\CSS\4.
Optativos\Algoritmos III\tempCodeRunnerFile.js"
[ 2, 2, 5 ]

[Done] exited with code=0 in 0.288 seconds
```

```
function a(x){
```

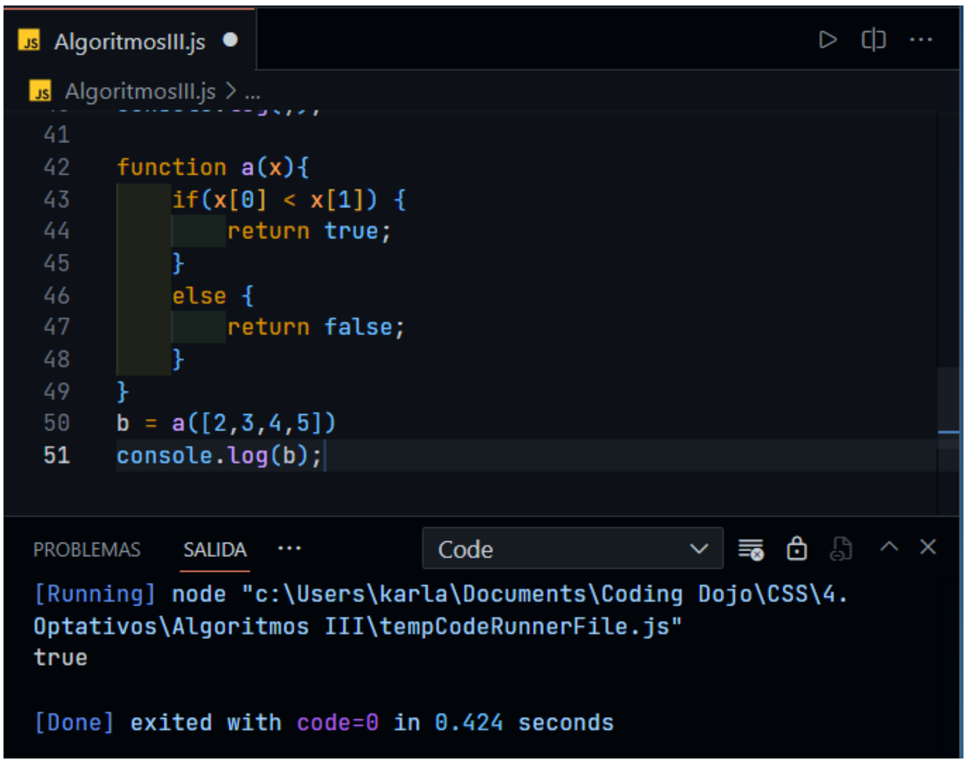
var	value

```
    if(x[0] < x[1]) {
       return true;
    }
    else {
       return false;
    }
 }
 b = a([2,3,4,5])
 console.log(b);
```

a	[2, 3, 4, 5]

Output esperado: true

Output de la consola



```
function a(x){
    if(x[0] < x[1]) {
        return true;
    }
    else {
        return false;
    }
}
b = a([2,3,4,5])
console.log(b);
```

```
[Running] node "c:\Users\karla\Documents\Coding Dojo\CSS\4. Optativos\Algoritmos III\tempCodeRunnerFile.js"
true

[Done] exited with code=0 in 0.424 seconds
```

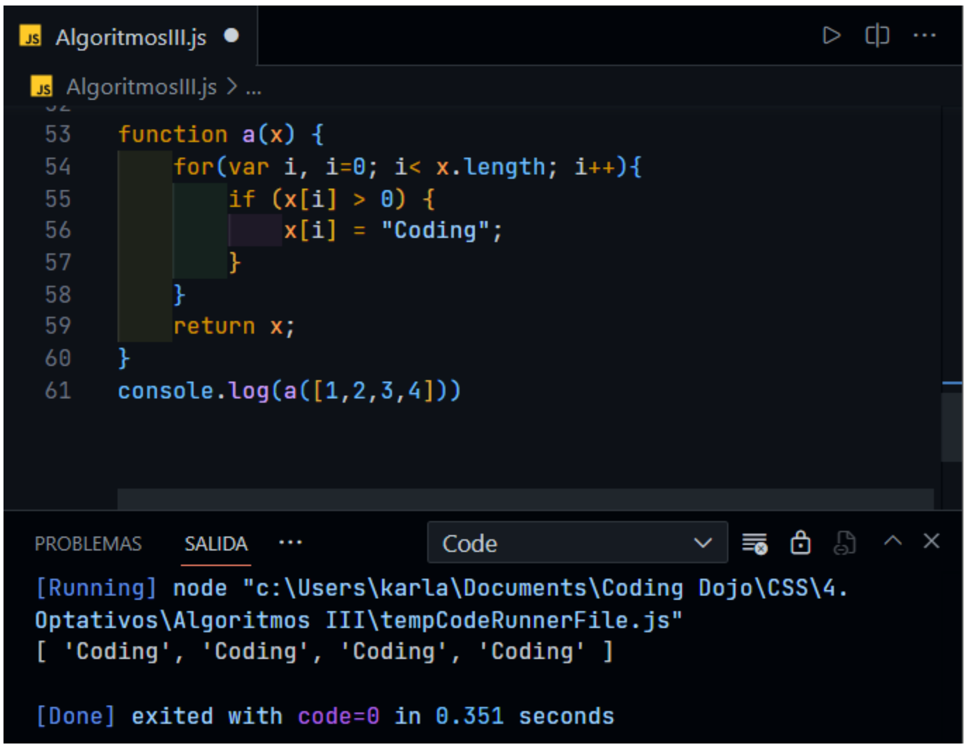
```
function a(x){
    for(var i=0; i<x.length; i++){
      if(x[i] > 0){
           x[i] = “Coding”;
      }
    }
    return x;
}
console.log(a([1,2,3,4]))
```

var	value
a	[1, 2, 3, 4]-⇒ [Coding, 2, 3, 4]⇒[Codign, Coding, 3, 4] ⇒ [Codign, Coding, Codign, Coding]

Se remplazan los valores del array por coding y el array no es devuelto hasta que termina elFforLoop

Output esperado: [Codign, Coding, Coding, Codign]

Output de la consola



```
function a(x) {
    for(var i, i=0; i< x.length; i++){
        if (x[i] > 0) {
            x[i] = "Coding";
        }
    }
    return x;
}
console.log(a([1,2,3,4]))
```

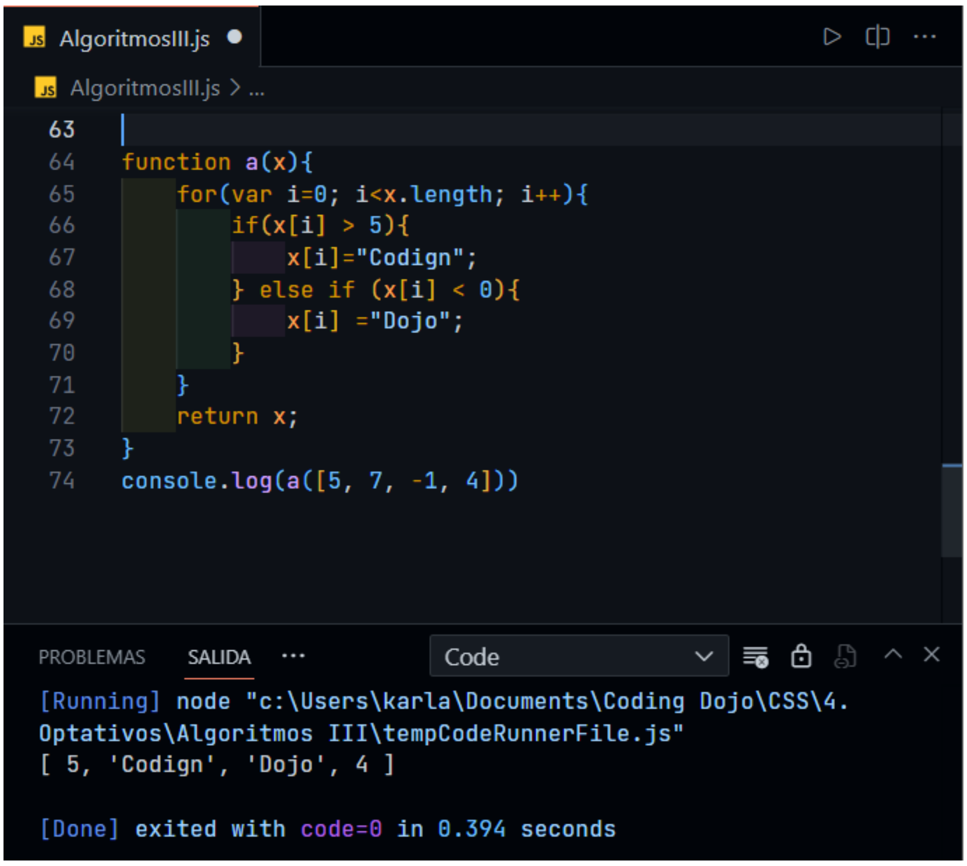
```
[Running] node "c:\Users\karla\Documents\Coding Dojo\CSS\4.
Optativos\Algoritmos III\tempCodeRunnerFile.js"
[ 'Coding', 'Coding', 'Coding', 'Coding' ]

[Done] exited with code=0 in 0.351 seconds
```

```
function a(x){
    for(var i=0; i<x.length; i++){
      if(x[i] > 5){
           x[i] = “Coding”;
      }
      else if(x[i] < 0){
           x[i] = “Dojo”;
      }
    }
    return x;
}
console.log(a([5,7,-1,4]))
```

var	value
a	[4, 7, -1, 4]⇒ [5, Codign, -1, 4]⇒ [5, Coding, Dojo, 4]

Output esperado: [5, Coding, Dojo, 4]

Output de la consola



```
function a(x){
    for(var i=0; i<x.length; i++){
        if(x[i] > 5){
            x[i]="Codign";
        } else if (x[i] < 0){
            x[i] ="Dojo";
        }
    }
    return x;
}
console.log(a([5, 7, -1, 4]))
```

```
[Running] node "c:\Users\karla\Documents\Coding Dojo\CSS\4.
Optativos\Algoritmos III\tempCodeRunnerFile.js"
[ 5, 'Codign', 'Dojo', 4 ]

[Done] exited with code=0 in 0.394 seconds
```

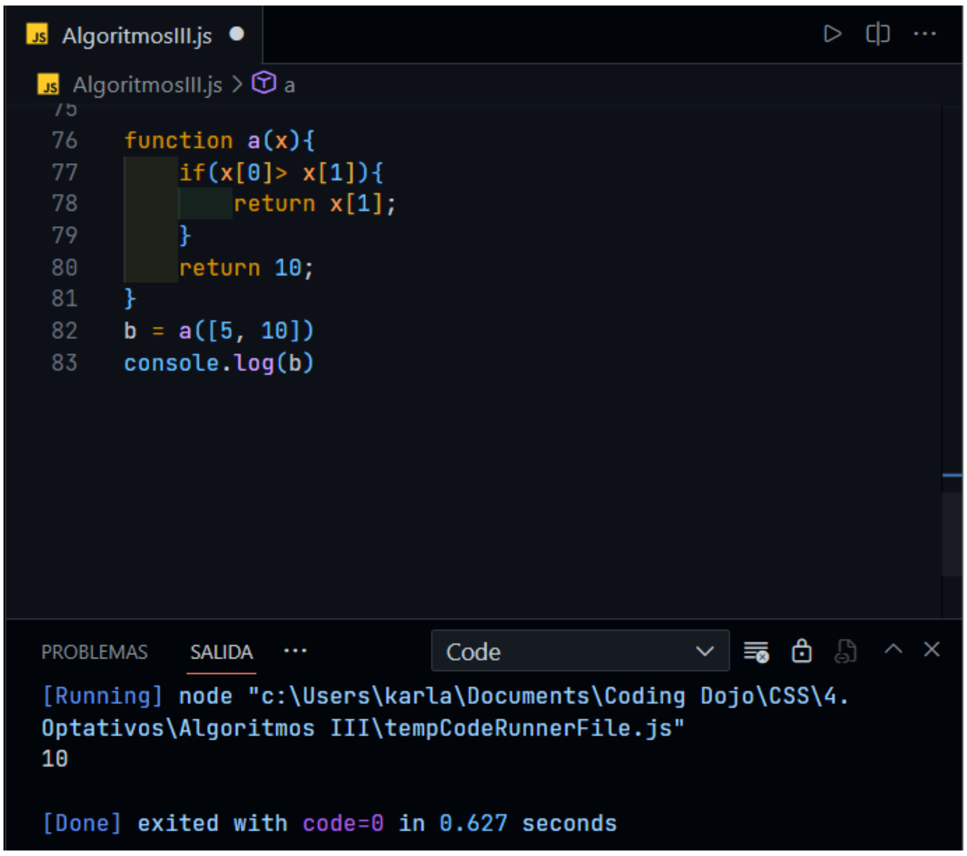
```
function a(x){
   if(x[0] > x[1]) {
    return x[1];
   }
   return 10;
}
b = a([5,10])
console.log(b);
```

var	value
a	[5, 10]

La condición nunca se cumple, por lo cual solo se retorna 10.

Output esperado: 10

Output de la consola



```
function a(x){
    if(x[0]> x[1]){
        return x[1];
    }
    return 10;
}
b = a([5, 10])
console.log(b)
```

```
[Running] node "c:\Users\karla\Documents\Coding Dojo\CSS\4.
Optativos\Algoritmos III\tempCodeRunnerFile.js"
10

[Done] exited with code=0 in 0.627 seconds
```

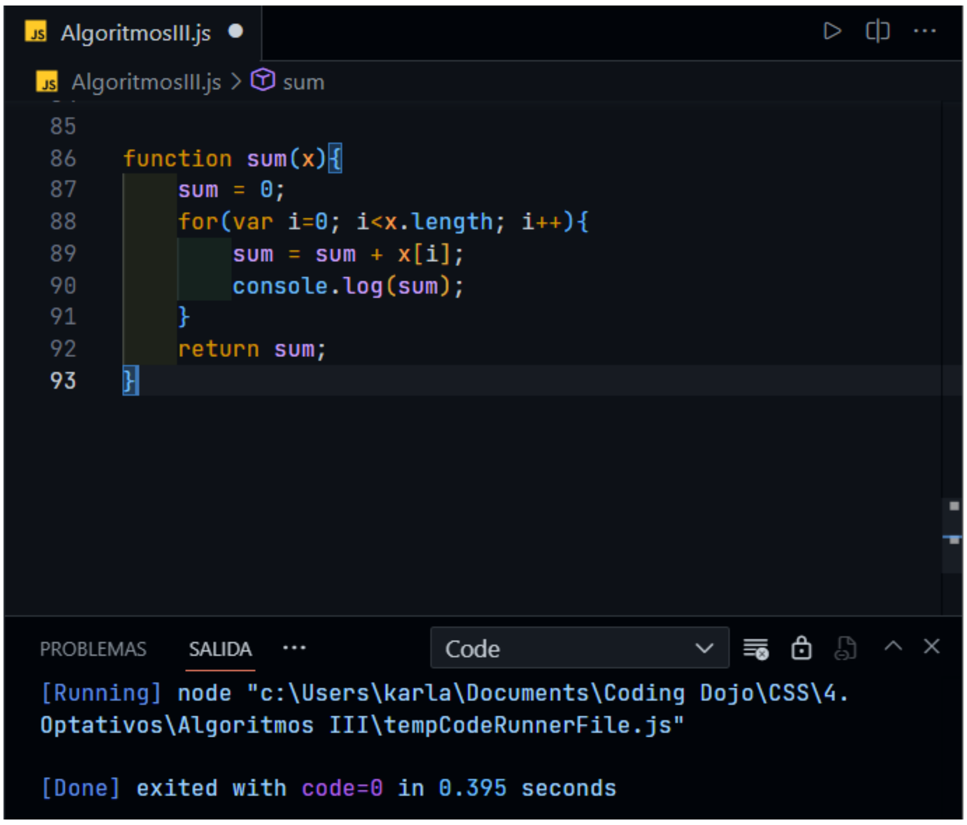
```
function sum(x){
    sum = 0;
    for(var i=0; i<x.length; i++){
       sum = sum + x[i];
       console.log(sum);
    }
    return sum;
}
```

var	value
sum	0

No retorna nada porque sum no vale nada

Output esperado: nada

Output de la consola



```
function sum(x){
    sum = 0;
    for(var i=0; i<x.length; i++){
        sum = sum + x[i];
        console.log(sum);
    }
    return sum;
}
```

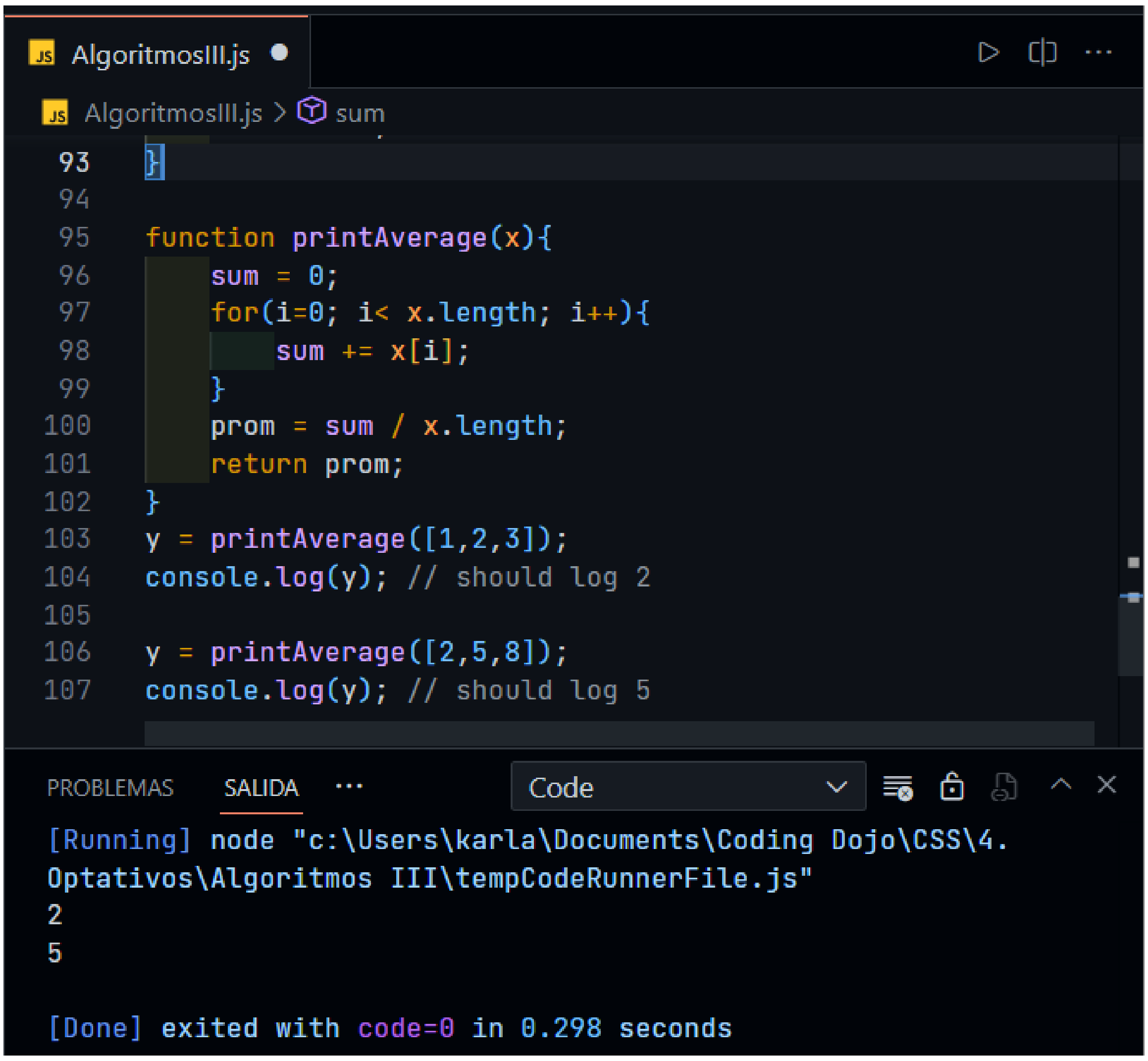
```
[Running] node "c:\Users\karla\Documents\Coding Dojo\CSS\4.
Optativos\Algoritmos III\tempCodeRunnerFile.js"

[Done] exited with code=0 in 0.395 seconds
```

Parte 2

1) Analiza los valores de un array y obtén el promedio (average) de esos valores.

```
function printAverage(x){
   sum = 0;
   for(i=0; i< x.length; i++){
    sum += x[i];
  }
  prom = sum / x.length;
  return prom;
}
y = printAverage([1,2,3]);
console.log(y); // should log 2

y = printAverage([2,5,8]);
console.log(y); // should log 5
```

Output de la consola:



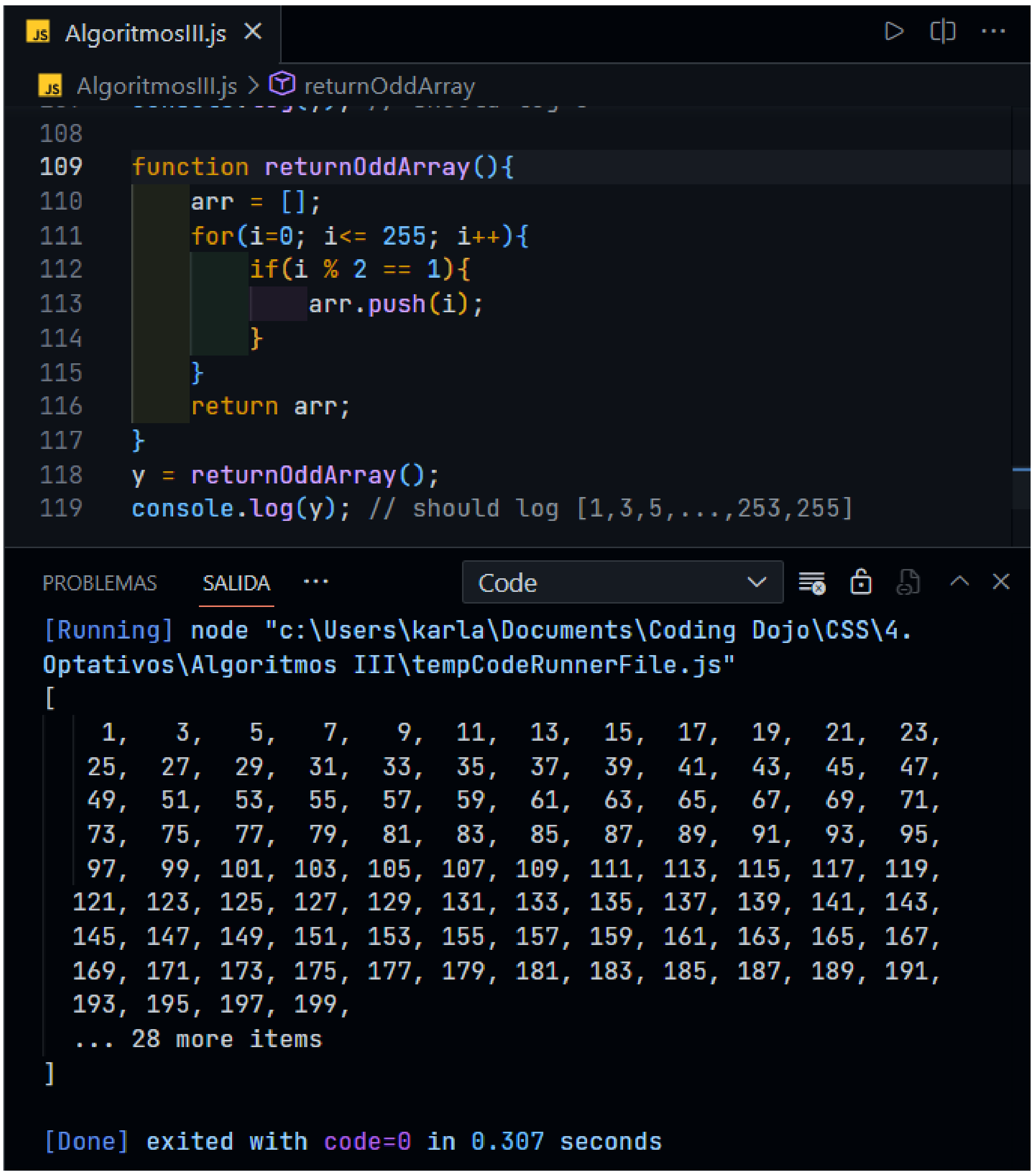
```
}

function printAverage(x){
    sum = 0;
    for(i=0; i< x.length; i++){
        sum += x[i];
    }
    prom = sum / x.length;
    return prom;
}
y = printAverage([1,2,3]);
console.log(y); // should log 2

y = printAverage([2,5,8]);
console.log(y); // should log 5
```

```
[Running] node "c:\Users\karla\Documents\Coding Dojo\CSS\4.
Optativos\Algoritmos III\tempCodeRunnerFile.js"
2
5

[Done] exited with code=0 in 0.298 seconds
```

2) Crea un array con todos los enteros impares (odd integers) entre 1 y 255 (inclusive)

```
function returnOddArray(){
    arr = [];
  for(i=0; i<= 255; i++){
    if(i % 2 == 1){
            arr.push(i);
        }
  }
    return arr;
}
y = returnOddArray();
console.log(y); // should log [1,3,5,...,253,255]
```

Output de la consola:



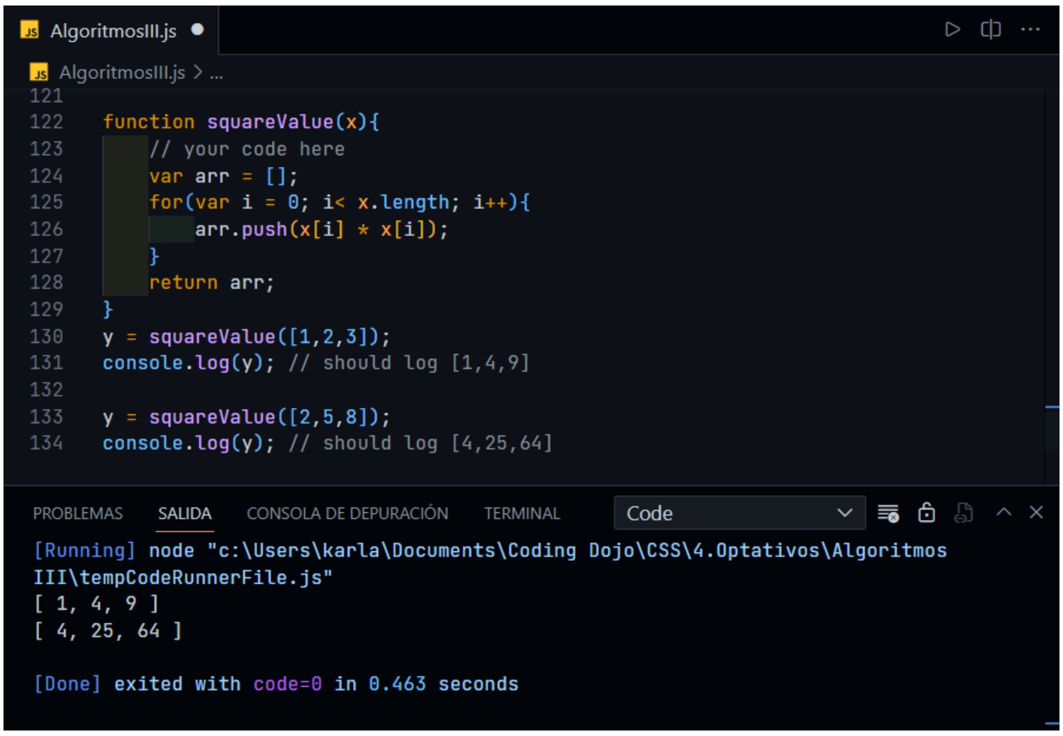
```
function returnOddArray(){
    arr = [];
    for(i=0; i<= 255; i++){
        if(i % 2 == 1){
            arr.push(i);
        }
    }
    return arr;
}
y = returnOddArray();
console.log(y); // should log [1,3,5,...,253,255]
```

```
[Running] node "c:\Users\karla\Documents\Coding Dojo\CSS\4.
Optativos\Algoritmos III\tempCodeRunnerFile.js"
[
    1,   3,   5,   7,   9,  11,  13,  15,  17,  19,  21,  23,
   25,  27,  29,  31,  33,  35,  37,  39,  41,  43,  45,  47,
   49,  51,  53,  55,  57,  59,  61,  63,  65,  67,  69,  71,
   73,  75,  77,  79,  81,  83,  85,  87,  89,  91,  93,  95,
   97,  99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119,
  121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143,
  145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167,
  169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191,
  193, 195, 197, 199,
  ... 28 more items
]

[Done] exited with code=0 in 0.307 seconds
```

3) Cuadra cada valor con un array dado, obteniendo el mismo array con valores cambiados..

```
function squareValue(x){
    // your code here
    var arr = [];
    for(var i = 0; i< x.length; i++){
        arr.push(x[i] * x[i]);
    }
    return arr;
}
y = squareValue([1,2,3]);
console.log(y); // should log [1,4,9]

y = squareValue([2,5,8]);
console.log(y); // should log [4,25,64]
```

output de la consola:



```
function squareValue(x){
    // your code here
    var arr = [];
    for(var i = 0; i< x.length; i++){
        arr.push(x[i] * x[i]);
    }
    return arr;
}
y = squareValue([1,2,3]);
console.log(y); // should log [1,4,9]

y = squareValue([2,5,8]);
console.log(y); // should log [4,25,64]
```

```
[Running] node "c:\Users\karla\Documents\Coding Dojo\CSS\4.Optativos\Algoritmos
III\tempCodeRunnerFile.js"
[ 1, 4, 9 ]
[ 4, 25, 64 ]

[Done] exited with code=0 in 0.463 seconds
```