

# Algoritmo II

## Lección

Code 1 - function y return 1

```
1 function a(){  
2     console.log('hello'); } Nunca se ejecuta la función  
3 } porque nunca se le llama.  
4 console.log('Dojo')
```

- Output: Dojo

Code 2 - function y return 1

```
1 function a() {  
2     console.log('hello');  
3     return 15;  
4 }  
5 x = a();  
6 console.log('x is' , x);
```

Var	Value
x	a()

- Output : hello

x is 15

### Code 3 - function y return 1

```
1 function a(n){  
2     console.log('n is', n);  
3     return n+15  
4 }  
5 x = a(3);  
6 console.log ('x is', x);
```

Var	Value
n	3
x	18

Output : n is 3

x is 18

### Code 4 - function y return

```
function a(n) {  
    console.log ('n is', n);  
    y = n*2;  
    return y;  
}  
x = a(3) + a(5)
```

x = 6 + 10

Var	Value
n	3 5
y	6, 10
x	16

Output : n is 3

n is 5

x is 16

## Code 5 - Orden de las operaciones 1

```
function op(a,b) {
    c = a + b;
    console.log('c is', c);
    return c;
}
x = op(2,3) + op(3,5);
console.log('x is', x)
```

Var	Value
x	13
c	5/8

Output : c is 5  
 c is 8  
 x is 13

## Code 6 - Orden de las operaciones 1

```
function op(a,b) {
    c = a + b;
    console.log('c is', c);
    return c;
}
x = op(2,3) + op(3,op(2,1)) + op(op(2,1), op(2,3));
console.log('x is', x)
```

Output: c is 5  
 c is 3  
 c is 6  
 c is 3  
 c is 5  
 c is 8  
 x is 19

Var	Value
c	5 3 / 6 3 / 5 8
x	19

## Code 7 - Scoping

```
Var x = 15;  
function a() {  
    Var x = 10;  
}  
console.log(x);  
a();  
console.log(x)
```

Output: 15  
15

Var	Value
x	15

## Actividad

①

```
function multiply (x,y) {  
    console.log (x);  
    console.log(y);  
}  
b = multiply (2,3);  
console.log (b)
```

Var	Value
x	2
y	3
b	/

Output: 2  
3

(2)

```
function multiply (x,y) {
    return x * y;
}

b = multiply (2,3);
console.log (b);
console.log (multiply (5,2));
```

Output: 6  
10

Var	Value
b	6 10

(3)

```
Var x = [1,2,3,4,5,10];
for (var i=0; i<5; i++) {
    i = i+3;
    console.log (i);
}
```

Output: 3  
7

Var	Value
x	[1,2,3,4,5,10]
i	0 3 4 7

(4)

```
Var x = 15;
console.log (x);
function awesome () {
    var x = 10;
    console.log (x);
}
(console.log (x));
awesome ();
console.log (x);
```

Var	Value
x	15 15 10 15

Output: 15  
15  
10  
15

(5)

```
for (var i=0; i<15; i+=2) {
    console.log (i);
}
```

var	value
i	0/2/4/6/8/10/12
	14

$$\begin{array}{ll}
 i = 0 + 2 = 2 & i = 6 + 2 = 8 \\
 i = 2 + 2 = 4 & i = 8 + 2 = 10 \\
 i = 4 + 2 = 6 & i = 10 + 2 = 12 \\
 i = 12 + 2 = \underline{14} &
 \end{array}$$

Output : 2 4 6 8 10 12 14

(6)

```
for (var i=0; i<3; i++) {
    for (var j=0; j<2; j++) {
        console.log (i*j);
    }
}
```

var	Value
i	0 1 2 /
j	0 1 /

Output : 0 0 0 1 0 2

\* Este no lo entendí por completo y tuve que sacar el output con VS code, pero aun así no lo entendí\*

(7)

```
function looping (x,y) {  
    for (var i=0; i<x; i++) {  
        for (var j=0; j<y; j++) {  
            console.log (i*j);  
        }  
    }  
}  
  
z = looping (3,3);  
console.log (z)
```

Var	Value
i	0 1 2
j	0 1 2
x	3
y	3

Output : 000012024

(8)

```
function looping (x,y) {  
    for (var i=0; i<x; i++) {  
        for (var j=0; j<y; j++) {  
            console.log (i*j);  
        }  
    }  
    return x*y;  
}  
  
z = looping (3,5);  
console.log (z)
```

Var	Value
i	0 1 2
j	0 1 2 3 4
x	3
y	5

Output : 0000001234024  
6 8 15