# Javascript Arrays

## Exercise 1

Create an empty array.

#### Solution

let array=[]

## Exercise 2

Create an empty array and add a number to it. Then add another number.

#### Solution

let array=[]  
  
array.push(10)  
  
array.push(20)

## Exercise 3

Create an empty array and add two numbers at once to it.

#### Solution

let array=[]  
  
array.push(10, 20)

## Exercise 4

Create an empty array and add the same number twice to it.

#### Solution

let array=[]  
  
array.push(10, 10)

## Exercise 5

log the second item of the array [1,2,3] to the console.

#### Solution

let a = [1,2,3]  
  
console.log(a[1])

## Exercise 6

Change the second item of the array [1,2,3] to 4.

#### Solution

let a = [1,2,3]  
  
a[1]=4

## Exercise 7

Remove the third item of the array [1,2,3].

#### Hints

Splice is tricky as it is used for several functions: splitting the array, deleting and inserting items.

#### Solution

let a = [1,2,3]  
  
a.splice(2,1)

## Exercise 8

Insert a new item to the array [1,2,3,5] so it will be [1,2, 3,4,5].

#### Solution

let a = [1,2,3,5]  
  
a.splice(2,0,4)

## Exercise 9

Create an array that contains two literal objects.

#### Solution

let a = [{name:"Joe", email:"joe@email.com"},{name:"Roe", email:"roe@email.com"}]

## Exercise 10

Log the email of item with name "Joe" from the array [{name:"Joe", email:"joe@email.com"},{name:"Roe", email:"roe@email.com"}]

#### Hints

Make sure you understand the differences between array and literal objects.

#### Solution

let a = [{name:"Joe", email:"joe@email.com"},{name:"Roe", email:"roe@email.com"}]  
  
  
  
console.log(a[0]["email"]

## Exercise 11

Change the name of item with name "Joe" to "Bob" in the array [{name:"Joe", email:"joe@email.com"},{name:"Roe", email:"roe@email.com"}]

#### Hints

Once you access an item in an array, use it as a normal object.

#### Solution

let a = [{name:"Joe", email:"joe@email.com"},{name:"Roe", email:"roe@email.com"}]  
  
  
  
a[0].name="Bob"

## Exercise 12

Add a phone number for the object with name "Joe" in the array [{name:"Joe", email:"joe@email.com"},{name:"Roe", email:"roe@email.com"}]

#### Solution

let a = [{name:"Joe", email:"joe@email.com"},{name:"Roe", email:"roe@email.com"}]  
  
  
  
a[0].phone = "+111-111-1111"

## Exercise 13

Replace (update) the second item in the array [1,2,3] with the number 5.

#### Solution

let array = [1,2,3]  
  
array[1]=5

## Exercise 14

Remove all items of the array [1,2,3] except the first.

#### Solution

let a = [1,2,3]  
  
a.splice(1)

## Exercise 15

Remove the items of the array [1,2,3,4] starting from the third item and put them in a new array.  
  
The new array should be [3,4]

#### Solution

let a = [1,2,3,4]  
  
let b = a.splice(2)

## Exercise 16

Create a new array with elements [1,2], [3,4].

#### Hints

Don't worry about sub-arrays, they are just arrays.

#### Solution

let a = [[1,2],[3,4]]

## Exercise 17

Log the first element of the array [[1,2],[3,4]] to the console.

#### Solution

let a = [[1,2],[3,4]]  
  
console.log(a[0])

## Exercise 18

Log the number 2 from the array [[1,2],[3,4]] to the console.

#### Solution

let a = [[1,2],[3,4]]  
  
console.log(a[0][1])

## Exercise 19

Update the number 3 from the array [[1,2],[3,4]] to the value 5.

#### Solution

let a = [[1,2],[3,4]]  
  
a[1][0]=5

## Exercise 20

Remove the array [3,4] from the array [[1,2],[3,4]].

#### Solution

let a = [[1,2],[3,4]]  
  
a.splice(1,1)

## Exercise 21

Remove the number 3 from the array [[1,2],[3,4]].

#### Solution

let a = [[1,2],[3,4]]  
  
a[1].splice(0,1)

## Exercise 22

Add a new array to the array [[1,2],[3,4]] so it will be [[1,2],[3,4], [5,6,7]].

#### Solution

let a = [[1,2],[3,4]]  
  
a.push([5,6,7])

## Exercise 23

Insert a new item to the array [[1,2],[3,4]] so it will be [[1,2],[3,5,4]].

#### Solution

let a = [[1,2],[3,4]]  
  
a[1].splice(1,0,5)