

**For each loop:** → { You can perform similar tasks with for of loop }

↓  
Used when you want to apply a function to each & every element of an array  
(same like apply function in python)

numbers = [1, 2, 3, 4, 5] → want to multiply each element by 2

function mul2(element) {  
 return ~ value multiply by 2 is {element \* 2} ~

console.log(numbers.map(mul2))

**Mastering Map, filter, Reduce, Sort** → Sort array or objects based on the keys or values

↓  
Use fun & returns a list

↓  
Use function that returns true or false & later keep only values to the array that satisfy certain true or false condition represent on the function

↓  
Some like  
Ans = 0  
{ Ans = Ans + sum }  
take 2 or more values & returns a single (optional) value.

Map → const array = [1, 2, 3, 4, 5]  
const output = array.map((num) => {  
 return num \* 2  
})  
console.log(output)

Filter →  
const array = [1, 2, 3, 4, 5]  
const output = array.filter((num) => { return num % 2 == 0 })  
console.log(output)

Reduce → const cart = [  
 { Name: "Laptop", price: 150000 },  
 { Name: "Mobile", price: 30000 },  
 { Name: "Guitar", price: 30000 },  
]

const total\_amount = cart.reduce((sum, item) => {  
 return sum + item.price  
})

let totalAmount = items.reduce((sum, item)

return sum + item.price 30)

console.log (totalAmount)

Sort

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

console.log (array.sort ( (a,b) => { return a-b } ) )

array = [ "a", "d", "c", "e", "b" ]

console.log (array.sort()) → for string

→ for numbers (since JS trust every no as a sci code).

b-a for descending.

array fun:

find → only finds 1 or value

every → check (returns false if anything is false)

some → check (returns true if any is true)

→ Take example flipkart cart

fill

→ replace anything from value inside a string

value, start, end  
index

splice

start → index  
delete → n  
insert → string

✓ Can also perform deletion

if variable → whenever you can use for of loop.  
array like → whenever you can use len, arr[i] methods.  
objects → if string, sets

(Function will also return its operation)

Set → every element will not repeat itself  
Unordered, unable to access

(New Keyword) → bond

array = [ 1, 2, 3, 4, 5 ] or any obj with {target}

Array Methods

find → returns only 1 match

every → returns false if anything is false

some → returns true if anything is true

let a = array.find ( name => { name === 'TargetN' } )

console.log (a)

can be every & some.

fill → array.fill (0, 1, 3)

fill the array for loc 1 to 3 to 0.

splice → array.splice (0, 3, "Hello")

fill the location from 0 to 5 with "Hello"

... (no order of elements)

Sets :->

Unordered (no order of elements)  
iterable (for of can be used)

immutable (Unable to make any changes)

Uniqueness (will only contain unique values)

Functions

```
let Aset = new Set()  
Aset.add(5)
```

fill the location from 0 to 5 with "Hello"

only way to find length  
of Set

```
)  
    result = 0  
    for (elem of Aset) {  
        result++  
    }
```

console.log(result)