What is the output ?

```
const numbers = [65 , 44 , 12 , 4];
numbers.forEach(myFunction);
console.log(numbers);

function myFunction(item , index , arr){
    arr[index] = item * 10;
}
```
[650,440,120,40]

```
var pokemon = ["squirtle", "charmander", "bulbasaur"];

var pokeLength =
  pokemon.reduce(function(previous, current) {
    return previous + current.length;
  }, 0);

console.log(pokeLength);
```
27

```javascript
const numbers = [5, 10, 15];

const reducer = numbers.reduce((accumulator, item)=>{
  return accumulator + item;
});

console.log(reducer);
```

30

```javascript
const euros = [29.76, 41.85, 46.5];

const doubled = euros.reduce((total, amount) => {
  total.push(amount * 2);
  return total;
}, []);

console.log(doubled);
```

[59.52 ,83.7 , 93]

```javascript
const numbers = [1, 2, 3, 4, 5];
console.log(numbers.includes(2));
console.log(numbers.includes(99));
```

true
false

```
const myBoolean = true;
if (myBoolean) {
  const turtles = [ error
      'leonardo',
      'donatello', not allowed to reassign
      'michaelangelo', const variable.
      'raphael'
  ];
  turtles = turtles.concat('Shredder');
  console.log(turtles);
}
```

```
const names = ['Batman', 'Catwoman', 'Joker', 'Bane'];
const fromIndex = 1;
const removeCount = 2;
const newNames = [
  ...names.slice(0, fromIndex),
  ...names.slice(fromIndex + removeCount)
];
console.log(newNames);
```

['Batman' ,'Bane']

```
console.log(typeof(NaN));
console.log(typeof(String));
console.log(typeof(undefind));
console.log(typeof(null));
console.log(typeof([5 , 10 , 20]));
```

Number
function
undefined
object
object

```
function showCoords(event) {
  document.getElementById("demo").innerHTML =
    `<p> X = ${event.clientX}</p>
     <p> Y = ${event.clientY}</p>`;
}
```

this function when event triggerd and the outpt will be
coordinates of the mouse cursor position

```
let person = {
  profile: {
    name: "",
    age: 0
  }
};

console.log(person.profile.name || "Anonymous");
console.log(person.profile.age || 18);
console.log(person.profile.name ?? "Anonymous");
console.log(person.profile.age ?? 18);
```

"Anonymous"
18
" "
0

```javascript
const colors = ['white', 'black', 'gray'];
const clone = [...colors];        [ 'white', 'black', 'gray' ]
console.log(clone);               false
console.log(colors === clone);
```

```javascript
const numbers = [1, 2, 3, 4, 5],
      nums = [];
function isEven(number) {          2
  return number % 2 === 0;         undefined
}
const evenNumber = numbers.find(isEven),
      evenNum  = nums.find(isEven);
console.log(evenNumber);
console.log(evenNum);
```

```javascript
let myFunc = (first, last) => ({ firstName: first, lastName: last }),
    testFunc = (first, last) => { firstName: first, lastName: last };

console.log(myFunc('john' , 'doe'));
console.log(testFunc('john' , 'doe'));
```

{ firstName: 'john', lastName: 'doe' }
{ firstName: 'john', lastName: 'doe' }

```
function mul(num1){
    return function(num2){
        return function(num3){
            return num1 * num2 * num3;
        }                           50
    }
}
console.log(mul(1)(5)(10));
```

```
let arr = ['john' , 'jack' , 'john' , 'jack'];

let result = arr.reduce((x , y) => {
    if(!x[y]){
        x[y] = 0;
    }
    x[y]++;
    return x;              [ john: 2, jack: 2 ]
} , []);

console.log(result)
```

Good Luck 😊

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