

# ALGORITHMS WITH JAVASCRIPT

## Problem - 1:

Write a program to Check the given input whether Even or odd.

```
function isEven(value){
  if (value%2 == 0)
    return "even"; // true
  else
    return "odd"; // false
}
console.log(isEven(2))
```

## Problem - 2:

Write a program that prints the numbers from 1 to 100 and for multiples of '3' print "Fizz" instead of the number and for the multiples of '5' print "Buzz". If its multiple of both 3 and 5, print "FizzBuzz"

```
for (let i = 1; i <= 100; i++){
  if (i % 15 === 0){
    console.log('Fizzbuzz');
  } else if (i % 3 === 0){
    console.log('Fizz');
  } else if (i % 5 === 0){
    console.log('Buzz');
  } else {
    console.log(i)
  }
}
```

## Problem - 3:

Write a program to find the Sum of Array Elements.

```
let array = [1, 2, 3, 4, 5]
const sum = array.reduce((acc, val) => acc + val , 0)

console.log(sum)
```

#### Problem - 4:

Write a program to check whether a number is a positive number or a negative number?

```
function isPositive(value){  
  if (value < 0)  
    return "negative";  
  else  
    return "positive";  
}  
console.log(isPositive(-2)) // negative
```

#### Problem - 5:

Write a program for swapping of two arrays

```
let arr1 = [1, 2, 3, 4];  
let arr2 = [4, 3, 2, 1];  
  
[arr1] = [arr2]; // ES6 destructuring  
  
console.log(arr1)
```

#### Problem - 6:

Write a program to find the maximum number in an array using the function?

```
let arr = [1, 2, 3, 4];  
console.log(Math.max(...arr))
```

#### Problem - 7:

Write a program to find Mean of given Array Elements?

```
let arr = [1, 2, 3, 4, 5]  
const mean = arr.reduce((acc, val) => acc +  
val ,0)/arr.length  
  
console.log(mean) // 3
```

### Problem - 8:

Write a program to check whether the given character is vowel or consonant ?

```
function isVowel(x) {  
    return ("aeiouAEIOU".indexOf(x) !== -1);  
}  
  
console.log(isVowel("z"))// false
```

### Problem - 9:

Write a program to find the largest number among the three numbers ?

```
let num1 = 1;  
let num2 = 2;  
let num3 = 3;  
  
let largerNum = num1 > num2 ? num1 : num2;  
let largestNum = largerNum > num3 ? largerNum : num3;  
  
console.log(`Largest number ${largestNum}`);
```

### Problem - 10:

Write a program to Check Whether the given year is a leap year or not ?

```
function isLeapYear(year){  
    if (year % 400 === 0)  
        return true  
    if (year % 100 === 0)  
        return false  
    return year % 4 === 0  
}  
  
console.log(isLeapYear(2000))  
function isLeapYear(year) {
```

```
    let leap = (year % 400 === 0 && year % 100 !== 0) || (year % 4  
=== 0);  
    console.log(leap ? "yes" : "no");  
}  
  
isLeapYear(2000); //yes
```