

1. Swap Two Variables Without Using a Third Variable

Question: Swap two numbers **a** and **b** without using a third variable.

```
javascript
CopyEdit
let a = 5, b = 10;
// Your code here
console.log(a, b); // Output: 10, 5
```

Concepts: Variables, operators.

2. Find the Largest of Three Numbers

Question: Write a function to find the **largest of three numbers** using conditional statements.

```
javascript
CopyEdit
function findLargest(a, b, c) {
    // Your code here
}
console.log(findLargest(3, 7, 5)); // Output: 7
```

Concepts: Conditional statements (**if-else**).

3. Check If a Number is Prime

Question: Write a function to check whether a given number is **prime**.

```
javascript
CopyEdit
function isPrime(num) {
    // Your code here
}
console.log(isPrime(7)); // Output: true
console.log(isPrime(10)); // Output: false
```

Concepts: Loops, conditionals.

4. Reverse an Array Without Using Built-in Methods

Question: Reverse an array using a **loop** instead of built-in methods.

```
javascript
CopyEdit
function reverseArray(arr) {
    // Your code here
}
console.log(reverseArray([1, 2, 3, 4])); // Output: [4, 3, 2, 1]
```

Concepts: Loops, arrays.

5. Sum of Even Numbers in an Array

Question: Write a function to find the **sum of all even numbers** in an array.

```
javascript
CopyEdit
function sumEvenNumbers(arr) {
    // Your code here
}
console.log(sumEvenNumbers([1, 2, 3, 4, 5, 6])); // Output: 12
```

Concepts: Arrays, loops, operators.

6. Count the Number of Vowels in a String

Question: Write a function to count the **number of vowels** in a given string.

```
javascript
CopyEdit
function countVowels(str) {
```

```
    // Your code here
}
console.log(countVowels("hello world")); // Output: 3
```

Concepts: Loops, conditionals, strings.

7. Find the Second Largest Number in an Array

Question: Find the **second largest number** in an array.

```
javascript
CopyEdit
function secondLargest(arr) {
    // Your code here
}
console.log(secondLargest([10, 20, 4, 45, 99])); // Output: 45
```

Concepts: Arrays, loops, conditionals.

8. Remove Duplicates from an Array

Question: Remove **duplicate elements** from an array and return a new array.

```
javascript
CopyEdit
function removeDuplicates(arr) {
    // Your code here
}
console.log(removeDuplicates([1, 2, 2, 3, 4, 4, 5])); // Output: [1,
2, 3, 4, 5]
```

Concepts: Arrays, loops, conditionals.

9. Find Factorial of a Number (Using Loop)

Question: Write a function to find the **factorial** of a given number using a loop.

javascript

CopyEdit

```
function factorial(n) {  
    // Your code here  
}  
console.log(factorial(5)); // Output: 120
```

Concepts: Loops, operators.

10. Check if an Array is Sorted (Ascending Order)

Question: Write a function to check whether an array is **sorted in ascending order**.

javascript

CopyEdit

```
function isSorted(arr) {  
    // Your code here  
}  
console.log(isSorted([1, 2, 3, 4, 5])); // Output: true  
console.log(isSorted([1, 3, 2, 4, 5])); // Output: false
```

Concepts: Loops, conditionals, arrays.