

# JavaScript Programminng Competition

SMIT Batch 10

Time: 2 hours

Total Points: 100

**Note:** Attempt all questions. Use VS code and then get your work marked by invigilator. You can assume if something is not provided in question.

**Assumptions** must be clear and written in comments and not conflict with given requirements.

Use of internet, book or ChatGPT is not allowed. Anyone caught getting help from any source will be immediately disqualified.

All questions carry equal marks.

**Question # 01:** Given an integer array `nums`, find a subarray that has the largest product, and return the product.

**Example 1:**

```
Input: nums = [2,3,-2,4]
Output: 6
Explanation: [2,3] has the largest product 6.
```

**Example 2:**

```
Input: nums = [-2,0,-1]
Output: 0
Explanation: The result cannot be 2, because [-2,-1] is not a subarray.
```

**Question # 02:** Given an array of integers `nums` and an integer `target`, return indices of the two numbers such that they add up to `target`.

You may assume that each input would have exactly one solution, and you may not use the same element twice.

**Example 1:**

```
Input: nums = [2,7,11,15], target = 9
Output: [0,1]
Explanation: Because nums[0] + nums[1] == 9, we return [0,1].
```

**Example 2:**

```
Input: nums = [3,2,4], target = 6
Output: [1,2]
```

**Example 3:**

```
Input: nums = [3,3], target = 6
Output: [0,1]
```

**Question # 03:** Reverse each word in a given input string.

For example `Welcome to this Javascript Guide!` should become `emocleW ot siht tpircsavaJ !ediuG`

**Question # 04:** Write a JavaScript program to display the reading status (i.e. display book name, author name and reading status) of the following books.

```
var library = [
  {
    author: 'Bill Gates',
    title: 'The Road Ahead',
    readingStatus: true
  },
  {
    author: 'Steve Jobs',
    title: 'Walter Isaacson',
    readingStatus: true
  },
  {
    author: 'Suzanne Collins',
    title: 'Mockingjay: The Final Book of The Hunger Games',
    readingStatus: false
  }
];
```

**Question # 05:**

Write a JavaScript function to convert an amount into coins.

Sample function : amountToCoins(46, [25, 10, 5, 2, 1])

Here 46 is the amount. and 25, 10, 5, 2, 1 are coins.

Output : 25, 10, 10, 1

You can return the answer in any order.