

# JavaScript Tasks

## Section: Arrays

### Basic Array Manipulation

1. Create an array with five fruit names and print the second element.
2. Replace the third element of an array with "Mango" and print the updated array.
3. Create an empty array and add three colors to it using `push()`. Print the array.
4. Remove the last element of an array using `pop()` and print the removed element.
5. Add two numbers at the beginning of an array using `unshift()` and print the array.
6. Remove the first element of an array using `shift()` and print the updated array.
7. Print the length of an array containing four elements.
8. Extract the last two elements from an array using `slice()` and print them.
9. Extract the middle element(s) of an array with an even number of elements using `slice()`.
10. Replace two middle elements in an array using `splice()` and print the updated array.

### Push, Pop, Shift, and Unshift

11. Create an array of three cities and add a new city at the end using `push()`.
12. Remove the last city from an array using `pop()` and print the updated array.
13. Add two new colors to the beginning of an array using `unshift()` and print the array.
14. Remove the first color from an array using `shift()` and print the removed color.
15. Use `push()` twice to add two new names to an array and print the array.
16. Use `pop()` on an array of five elements and check if the length is now four.
17. Use `shift()` on an array with three elements and print the updated array.
18. Use `unshift()` to add a new number at the beginning of an array and print it.
19. Create an array of three numbers, remove the last one using `pop()`, and print the remaining array.
20. Create an array with three elements, remove the first using `shift()`, and print the updated array.

### Slice and Splice

21. Extract the first three elements from an array using `slice()` and print them.
22. Extract elements from index 2 to 4 using `slice()` and print them.

23. Remove two elements from an array starting from index 1 using `splice()`.
24. Insert "Lemon" and "Orange" at index 2 in an array using `splice()` and print the updated array.
25. Remove the last two elements using `splice()` and print the modified array.
26. Use `splice()` to add three new numbers at the beginning of an array and print the array.
27. Create an array with six elements, extract the last four using `slice()`, and print them.
28. Use `slice()` on an array and check if the original array remains unchanged.
29. Use `splice()` to remove one element from the middle of an array and print the updated array.
30. Use `splice()` to replace two elements in an array and print the modified array.

## Pass by Reference

31. Assign an array to another variable and modify the original array. Print both variables.
32. Create a function that adds an element to an array and check if the original array changes.
33. Pass an array to a function, modify its first element, and print the modified array.
34. Create an array, pass it to another variable, modify the second variable, and print both.
35. Check if two variables referencing the same array are equal after modifying one.
36. Create an array, pass it to a function that removes an element, and print the result.
37. Store an array in two different variables, modify one using `push()`, and print both.
38. Use `pop()` on an array inside a function and see if the original array changes.
39. Pass an array to a function that changes its length and check the effect.
40. Create two separate arrays with identical elements and check if they are strictly equal.