Section 1: Functions and Arrays

1. **Unique Array Elements:** Write a function that takes an array as input and returns a new array containing only the unique elements. You cannot use `Set` objects.
2. **Array Reversal:** Write a function that takes an array and reverses its elements in place without using the built-in `reverse()` method.
3. **Find the Second Largest Number:** Given an array of numbers, write a function to find and return the second largest number.
4. **Calculate Average:** Write a function that takes an array of numbers and returns their average. The function should handle cases where the array is empty.
5. **Remove Duplicates from String:** Write a function that takes a string and returns a new string with all duplicate characters removed. For example, `'hello'` would return `'helo'`.

Section 2: String and Number Manipulation

6. **Capitalize Each Word:** Write a function that takes a sentence string and capitalizes the first letter of each word. For example, `'hello world'` should become `'Hello World'`.
7. **Check for Anagrams:** Write a function that takes two strings and returns `true` if they are anagrams of each other (i.e., they contain the same characters in the same quantities, but possibly in a different order), and `false` otherwise. For example, `'listen'` and `'silent'` are anagrams. **AH**
8. **Flatten a Nested Array:** Write a function that takes a nested array (e.g., `[1, [2, 3], [4, [5]]]`) and returns a single, flattened array (e.g., `[1, 2, 3, 4, 5]`). You must use a loop and recursion.
9. **Matrix Transposition:** Given a 2D array representing a matrix, write a function that returns its transpose. The transpose of a matrix is a new matrix whose rows are the columns of the original.
10. **Find All Subsets:** Write a function that takes an array and returns an array of all its possible subsets (also known as the power set). For example, `[1, 2, 3]` would return `[[], [1], [2], [3], [1, 2], [1,3], [2,3], [1,2,3]]`.

Section 3: Advanced Logic and Algorithms

11. **Remove Vowels from a String:** Write a function that takes a string and returns a new string with all vowels removed.

12. **Sum of Two Largest Numbers:** Write a function that takes an array of numbers and returns the sum of the two largest numbers.
13. **Check for Palindrome (Number):** Write a function that takes a number and returns `true` if it's a palindrome (reads the same forwards and backward), and `false` otherwise. Do not convert the number to a string.
14. **Find the Missing Number:** Given an array of `n-1` numbers from 1 to `n` with no duplicates, write a function to find the single missing number.
15. **Rotate an Array:** Write a function that takes an array and an integer `k` and rotates the array to the right by `k` steps. For example, `[1, 2, 3, 4, 5]` rotated by `2` would become `[4, 5, 1, 2, 3]`.