

- Write a function that takes an array of numbers and returns the largest number in that array.

- Examples:

```
findLargest([1, 3, 5, 7, 9]); // Output: 9
findLargest([-10, -5, 0, 5, 10]); // Output: 10
findLargest([34, 23, 12, 56, 89]); // Output: 89
```

- Create a function that takes a string and counts how many vowels (a, e, i, o, u) are in the string.

- Examples:

```
countVowels("Hello World"); // Output: 3
countVowels("JavaScript"); // Output: 3
countVowels("OpenAI"); // Output: 3
```

- Write a function that takes an array of numbers and returns the total sum of those numbers.

- Examples:

```
sumArray([1, 2, 3, 4, 5]); // Output: 15
sumArray([-1, -2, -3, -4, -5]); // Output: -15
sumArray([10, 20, 30]); // Output: 60
```

- Create a function that takes a string and returns a new string that is the reverse of the input string.

- Examples:

```
reverseString("JavaScript"); // Output: "tpircSavaJ"
reverseString("hello"); // Output: "olleh"
reverseString("OpenAI"); // Output: "IAnepO"
```

- Write a function that determines whether a given number is a prime number (a number greater than 1 that has no positive divisors other than 1 and itself).

- Examples:

```
isPrime(7); // Output: true
isPrime(10); // Output: false
isPrime(13); // Output: true
```

- Write a function that calculates the average (mean) of all numbers in an array.

- Examples:

```
findAverage([10, 20, 30, 40, 50]); // Output: 30
findAverage([1, 2, 3, 4, 5]); // Output: 3
findAverage([100, 200, 300]); // Output: 200
```

- Write a function that generates a Fibonacci sequence where each number is less than or equal to a given maximum number.

- Examples:

```
generateFibonacci(15); // Output: [0, 1, 1, 2, 3, 5, 8, 13]
generateFibonacci(10); // Output: [0, 1, 1, 2, 3, 5, 8]
generateFibonacci(50); // Output: [0, 1, 1, 2, 3, 5, 8, 13, 21, 34]
```

- Write a function that identifies the longest word in a given sentence.

- Examples:

```
findLongestWord("The quick brown fox jumps over the lazy dog");
// Output: "jumps"
findLongestWord("JavaScript is awesome"); // Output: "JavaScript"
findLongestWord("Hello world!"); // Output: "Hello"
```

- Create a function that checks if a string reads the same forwards and backwards, ignoring spaces, punctuation, and case.

- Examples:

```
isPalindrome("A man, a plan, a canal, Panama"); // Output: true
isPalindrome("Racecar"); // Output: true
isPalindrome("Hello"); // Output: false
```

- Write a function that converts a string so that each word starts with an uppercase letter and the rest are lowercase.

- Examples:

```
toTitleCase("hello world"); // Output: "Hello World"
toTitleCase("javascript is fun"); // Output: "JavaScript Is Fun"
toTitleCase("OPENAI"); // Output: "Openai"
```

- Write a function that finds the item that appears the most often in an array.

- Examples:

```
mostFrequentItem([1, 2, 2, 3, 3, 3, 4, 4, 4, 4]); // Output: 4
mostFrequentItem([
  "apple",
  "banana",
  "apple",
  "orange",
  "banana",
  "banana",
]); // Output: 'banana'
mostFrequentItem([10, 20, 10, 30, 20, 10]); // Output: 10
```

- Write a function that sorts an array of objects based on a specific property, such as age or name.

- Examples:

```
sortObjects(
  [
    { name: "Alice", age: 25 },
    { name: "Bob", age: 30 },
    { name: "Charlie", age: 20 },
  ],
  "age"
);
// Output: [{ name: "Charlie", age: 20 }, { name: "Alice", age:
25 }, { name: "Bob", age: 30 }]

sortObjects(
  [
    { name: "Zara", salary: 50000 },
    { name: "John", salary: 70000 },
    { name: "Doe", salary: 60000 },
  ],
  "salary"
);
// Output: [{ name: "Zara", salary: 50000 }, { name: "Doe",
salary: 60000 }, { name: "John", salary: 70000 }]

sortObjects(
  [
    { name: "Alice", score: 85 },
    { name: "Bob", score: 90 },
    { name: "Charlie", score: 80 },
  ],
  "score"
);
// Output: [{ name: "Charlie", score: 80 }, { name: "Alice",
score: 85 }, { name: "Bob", score: 90 }]
```

- Write a function that returns an array of elements that are present in both of the given arrays.

- Examples:

```
findIntersection([1, 2, 3, 4], [3, 4, 5, 6]); // Output: [3, 4]
findIntersection(["a", "b", "c"], ["b", "c", "d"]); // Output:
['b', 'c']
findIntersection([7, 8, 9], [9, 10, 11]); // Output: [9]
```

- Write a function that flattens a nested array (an array within an array) into a single array.

- Examples:

```
flattenArray([[1, 2, [3]], [4, 5], [6]]); // Output: [1, 2, 3, 4,
5, 6]
flattenArray([1, [2, [3, [4]]], 5]); // Output: [1, 2, 3, 4, 5]
flattenArray(["a", "b"], ["c", ["d", "e"]], "f"]); // Output:
['a', 'b', 'c', 'd', 'e', 'f']
```