CODING (MESUT)

1. SUM OF ELEMENTS:

```
function sumOfPositiveElements(arr) {
  let sum = 0;

  for (let i = 0; i < arr.length; i++) {
    if (arr[i] > 0) {
      sum += arr[i];
    }
  }
  return sum;
}
// Example usage:
const array = [1, -2, 3, -4, 5];
const result = sumOfPositiveElements(array);
console.log(result); // Output: 9
```

```
function sumOfPositiveElements(arr) {
  const positiveElements = arr.filter(num => num > 0);
  const sum = positiveElements.reduce((acc, num) => acc + num, 0);
  return sum;
}

// Example usage:
const array = [1, -2, 3, -4, 5];
const result = sumOfPositiveElements(array);
console.log(result); // Output: 9
```

2. ABBREVIATION:

```
function abbreviateName(name) {
  const nameArray = name.split(" ");

  // Using filter and map methods
  const initials = nameArray
    .filter(word => word !== "")
    .map(word => word.charAt(0).toUpperCase());

  // Using reduce method
```

```
  const abbreviatedName = initials.reduce((acc, initial) => acc + initial, "");

  // Using forEach method
  nameArray.forEach(word => {
    if (word !== "") {
      abbreviatedName += word.charAt(0).toUpperCase();
    }
  });

  return abbreviatedName;
}

// Example usage:
const fullName = "John Doe";
const abbreviated = abbreviateName(fullName);
            console.log(abbreviated); // Output: "JD"
```

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3. SQUARE VALUES OF AN ARRAY:

```
const numbers = [1, 2, 3, 4, 5];
const squaredNumbers = [];

for (let i = 0; i < numbers.length; i++) {
  squaredNumbers.push(numbers[i] ** 2);
}
console.log(squaredNumbers); // Output: [1, 4, 9, 16, 25]
```

```
const numbers = [1, 2, 3, 4, 5];
const squaredNumbers = [];

numbers.forEach(num => {
  squaredNumbers.push(num ** 2);
});

console.log(squaredNumbers); // Output: [1, 4, 9, 16, 25]
```

```
const numbers = [1, 2, 3, 4, 5];
const squaredNumbers = [];
```

```
for (let i = 0; i < numbers.length; i++) {
  squaredNumbers.push(numbers[i] ** 2);
}

console.log(squaredNumbers); // Output: [1, 4, 9, 16, 25]
```

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4. SUM OF ODD NUMBERS IN AN ARRAY:

```
const numbers = [1, 2, 3, 4, 5];
let sum = 0;

for (let i = 0; i < numbers.length; i++) {
  if (numbers[i] % 2 !== 0) {
    sum += numbers[i];
  }
}
console.log(sum); // Output: 9
```

```
const numbers = [1, 2, 3, 4, 5];
const sum = numbers.reduce((acc, num) => {
  if (num % 2 !== 0) {
    return acc + num;
  }
  return acc;
}, 0);

console.log(sum); // Output: 9
```

---

5. ARRAY LENGTH:

```
const elements = ['apple', 'banana', 'orange'];

const lengths = [];

for (let i = 0; i < elements.length; i++) {

  lengths.push(elements[i].length);

}

console.log(lengths); // Output: [5, 6, 6]
```

```
const elements = ['apple', 'banana', 'orange'];

const lengths = elements.map(element => element.length);

console.log(lengths); // Output: [5, 6, 6]
```

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6. CAPITALIZATION:

```
const cars = ['toyota', 'honda', 'bmw'];
const capitalizedCars = [];

for (let i = 0; i < cars.length; i++) {
  const capitalizedCar = cars[i].toUpperCase();
  capitalizedCars.push(capitalizedCar);
}

console.log(capitalizedCars); // Output: ["TOYOTA", "HONDA", "BMW"]
```

```
const cars = ['toyota', 'honda', 'bmw'];
const capitalizedCars = cars.map(car => car.toUpperCase());

console.log(capitalizedCars); // Output: ["TOYOTA", "HONDA", "BMW"]
```