function plusMinus(arr) {

    const n = arr.length;

    let pos = 0, neg = 0, zero = 0;

    for (let i = 0; i < n; i++) {

        if(arr[i] > 0) pos++;

    else if(arr[i] < 0) neg++;

    else zero++;

}

console.log((pos / n).toFixed(6));

console.log((neg / n).toFixed(6));

console.log((zero / n).toFixed(6));

}

function minMax(arr) {

    arr.sort((a, b) => a - b);

    let minSum = arr.slice(0, 4).reduce((a, b) => a + b, 0);

    let maxSum = arr.slice(1, 5).reduce((a, b) => a + b, 0);

    console.log(minSum + " " + maxSum);

}

function timeConversion(s) {

    let hour = parseInt(s.slice(0, 2)); // Extract the hour part

    const rest = s.slice(2, 8); // Extract the rest of the string (minutes, seconds, and AM/PM)

    const ampm = s.slice(8,10); // Extract AM/PM

    if(ampm ==="AM") {

        if(hour === 12) hour = 0; // Convert 12 AM to 00

    } else { // PM case

        if(hour !== 12) hour += 12; // Convert PM hour to 24-hour format

        }

        // Format the hour to always be two digits

        const hourStr = hour.toString().padStart(2, '0');

        return hourStr + rest; // Return the formatted time

    }

function findMedian(arr) {

    // Sort the array in ascending order

    arr.sort((a, b) => a - b);

    // Find the middle index

    const mid = Math.floor(arr.length / 2);

    // Since the problem usually expects an odd-length array,

    // the median is the middle element after sorting

    return arr[mid];

}

function lonelyInteger(a) {

    return a.reduce((acc, num) => acc ^ num, 0); // XOR all elements

// The result will be the lonely integer

}

function diagonalDifference(arr) {

    let primarySum = 0;

    let secondarySum = 0;

    const n = arr.length;

    for(let i = 0; i < n; i++) {

        primarySum += arr[i][i]; // Sum of primary diagonal

        secondarySum += arr[i][n - 1 - i]; // Sum of secondary diagonal

    }

    return Math.abs(primarySum - secondarySum); // Return the absolute difference

}

function countingSort(arr) {

    let freq = Array(100).fill(0); // Initialize frequency array of 100 zeros

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

        freq[arr[i]]++; // Increment the frequency of the element

    }

    return freq;

}

function flippingMatrix(matrix) {

    const n = matrix.length / 2; // Size of the submatrix

    let sum = 0;

    for(let i = 0; i < n; i++) {

        for(let j = 0; j < n; j++) {

            // Calculate the maximum value from the four possible positions

            sum += Math.max(

                matrix[i][j],

                matrix[i][2 \* n - 1 - j],

                matrix[2 \* n - 1 - i][j],

                matrix[2 \* n - 1 - i][2 \* n - 1 - j]

            );

        }

    }

    return sum;

}

function processData(inputString) {

    console.log("1 st row of code");

    console.log(inputString);

}