

## Assignment 5: Arrays

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1. WAP to add corresponding elements of two 1-Dimensional arrays and store in the third array, also calculate the average of the third array.
2. WAP to sort an array in descending order.
3. WAP to count total no of odd and even numbers from the 1-D array.
4. WAP to exchange the smallest and largest values in 1-D array.
5. WAP to delete an element of an array given by the user.
6. WAP to insert an element in an array specified by the user.
7. Given an array `arr[]` of size `N`. The task is to find the sum of `arr[i] % arr[j]` for all valid pairs.

Answer can be large. So, output answer modulo 1000000007

Input: `arr[] = {1, 2, 3}`

Output: 5

$$(1 \% 1) + (1 \% 2) + (1 \% 3) + (2 \% 1) + (2 \% 2) + (2 \% 3) + (3 \% 1) + (3 \% 2) + (3 \% 3) = 5$$

8. WAP to perform matrix multiplication of 3\*3 matrixes .
9. Given an array of integers of size `n`, find out if the numbers in the array appear in a palindromic order. A palindrome is a sequence that reads the same when you flip it. For example, 121 is a palindrome, 3 is a palindrome, and 234432 is also a palindrome
10. Given two sorted arrays of sizes `m` and `n`, write a program that merges the two into another array of size `m + n` such that this new array also remains sorted.
11. WAP to subtract 2-D Matrices.