

Problems on Array - 3

Assignment Questions



Q1. Given an integer m , n , and n integers, return true if the number of unique integers among the n integers is greater than or equal to m , else return false. (Integers appearing multiple times are all considered as 1 unique integer)

(Easy)

Input 1:

5
10
1 2 1 4 5 2 1 1 2 2

Output 1:

false

Input 2:

9
15
1 4 5 0 9 8 3 7 3 2 6 8 11 15 23

Output 2:

true

Q2. Given an integer array arr , return the number of consecutive sequences (subarrays) with odd sum.

(Medium)

Input 1:

$N = 3$
[1,3,5]

Output 1:

4

Input 2:

$N = 3$
[2,4,6]

Output 2:

0

Q3. You are given an integer array $height$ of length n . There are n vertical lines drawn such that the two endpoints of the i th line are $(i, 0)$ and $(i, height[i])$.

(Medium)

Find two lines that together with the x -axis form a container, such that the container contains the most water.

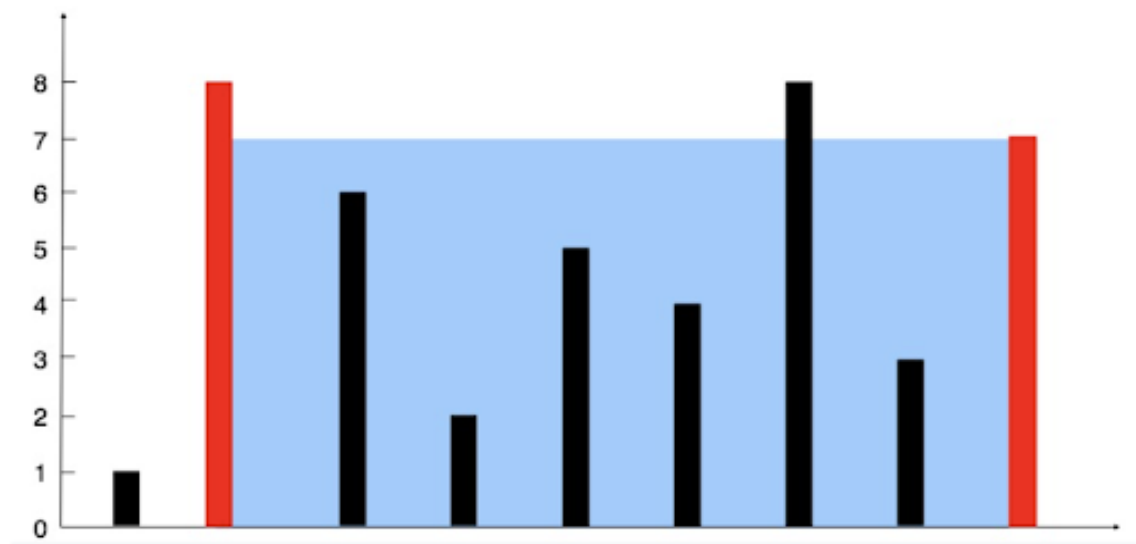
Return the maximum amount of water a container can store.

Input 1:

$n = 9$
 $height = [1, 8, 6, 2, 5, 4, 8, 3, 7]$

Output 1:

49



Input 2:

$n = 2$

height = [1,1]

Output 2:

1

Q4. Given a 1-indexed array of integers numbers that is already sorted in non-decreasing order, find two numbers such that they add up to a specific target number. (Medium)

Return the indices of the two numbers added by one. Return -1 if pair does not exist.

Input 1:

$n = 4$

numbers = [2,7,11,15]

target = 9

Output 1:

1 2

Input 2:

$n = 2$

numbers = [-1,0]

target = -1

Output 2:

1 2

Q5. Given an array sorted in increasing order, return an array of squares of each number sorted in increasing order.

(Hard)

Input 1:

$N = 6$

$\text{Arr}[] = [-5, -2, -1, 0, 4, 6]$

Output 1:

$[0, 1, 4, 16, 25, 36]$

Input 2:

$N = 5$

$\text{Arr}[] = [2, 1, 0, 4, 6]$

Output 2:

$[0, 1, 4, 16, 36]$



skills