

Maximum sum of elements not part of LIS

Given an array **arr[]** of positive integers, your task is to find the **maximum possible sum** of all elements that are not part of the **Longest Increasing Subsequence (LIS)**.

Examples:

Input: arr[] = [4, 6, 1, 2, 3, 8]

Output: 10

Explanation: The elements which are not in LIS is 4 and 6.

Input: arr[] = [5, 4, 3, 2, 1]

Output: 14

Explanation: The elements which are not in LIS is 5, 4, 3 and 2.

Constraints:

$1 \leq \text{arr.size()} \leq 10^3$

$1 \leq \text{arr}[i] \leq 10^5$