Weighted Longest Increasing Subsequence

(Time Limit: 2 seconds)

Problem Description

Given a sequence S of nonnegative integers, find the maximum total weight of any increasing subsequence of S. The weight of a sequence is the sum of the weights of all its elements.

Technical Specification

- The number of test cases is at most 10.
- The length of S is at most 150000. The weight of each element is a nonnegative integer at most 100.
- All integers are nonnegative 31-bit integers.

Input Format

The test file contains several test cases. The first line is the number of test cases. For each test case, the first line is the length of S, and the second line contains the n integers separated by a space, which are the elements of S. The third line contains the weights of the elements

Output Format

For each test case, output the answer of each test case in one line.

Example

Sample Input:	Sample Output:
2 3 1 1 1 5 3 4 7 3 2 5 1 8 6 7 1 2 4 3 7 2 4	5 13