Problem C
Marble Sorting
Time limit: 1 second

To develop logical thinking for prodigies, Bom has created a game with n marbles. The marbles are arranged in a single horizontal row, each with a unique color corresponding to an integer value from 1 to n. In other words, the color of the n marbles is a permutation of the numbers from 1 to n.

The game aims to reorder the marbles according to a required order by swapping any two marbles. To increase the difficulty, each marble of color i has a movement cost of w_i. The cost to swap two marbles of color i and j is $w_i + w_j$.

Find a way to reorder the marbles with the minimum total cost.

Input

- The first line contains an integer n ($1 \leq n \leq 10^6$).
- The second line contains n integers $w_1, w_2, \ldots, w_n$ ($1 \leq w_i \leq 10000$), representing the movement cost of marbles of each color.
- The third line contains n integers $a_1, a_2, \ldots, a_n$, representing the initial order of the marbles by their color.
- The fourth line contains n integers $b_1, b_2, \ldots, b_n$, representing the desired order of the marbles by their color.

Output

Output a single integer representing the minimum cost to reorder the marbles.

Sample Input	Sample Output
6 8 6 3 8 4 9 1 4 5 3 6 2 5 3 2 4 6 1	33

Explanation

- Step 1: Swap marble of color 2 and marble of color 5 with a cost of $6 + 4 = 10$.
- Step 2: Swap marble of color 3 and marble of color 4 with a cost of $3 + 8 = 11$.
- Step 3: Swap marble of color 1 and marble of color 5 with a cost of $8 + 4 = 12$.
- Total cost: 33.