## The one of the edition distance (I)         P26005_en

Some problems are so classic that barely need a statement. For this one, please compute the minimum cost to insert letters into two words $w_1$ and $w_2$ to make them identical. Both words are made up of only letters chosen among the $n$ smallest lowercase letters (for instance, for $n = 4$, the alphabet is $\{a, b, c, d\}$). For every letter (call it $x$), inserting an $x$ in any place in any word has cost $I_x$.

### Input

Input consists of several cases. Each case begins with $2 \leq n \leq 26$, followed by $n$ strictly positive natural numbers $I_a, I_b, I_c, \ldots$. Follow two words $w_1$ and $w_2$ made up of between 1 and 1000 lowercase letters chosen among the $n$ smallest letters. Assume $1 \leq I_x \leq 1000$ for every letter $x$.

### Output

For every case, print the minimum cost to make $w_1$ and $w_2$ identical.

### Sample input 1

```
2
11 10
aaa
aba

4
100 100 100 1
abcd
bcda

3
1 10 100
abbcabccabbac
bbcabacabbac

4
1 2 1 4
dcbbcbbddccdabdbdbdcbbc
cddcab
```

### Sample output 1

```
21
200
102
40
```

### Problem information

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