

Problem D

Balls and Bins

We have n bins, and bin i currently has $x[i]$ balls in it. We want to do some operations so that the final configuration is $y[1..n]$, and also minimize the cost. Here are the three operations we can do.

- Make a new ball, and put it in a bin i . The cost is X .
- Take out a ball from a bin, and destroy it. The cost is Y .
- Take a ball from bin i , and put it in bin j . The cost is $Z \times |i - j|$.

Input

First line contains four integers: n, X, Y, Z ($1 \leq n \leq 200, 0 \leq X, Y, Z \leq 10000$).
Second line contains n integers, $x[1], \dots, x[n]$, which represents the initial configuration.
Third line contains n integers, $y[1], \dots, y[n]$, which represents the final configuration.
For all inputs, we have $0 \leq x[i], y[i] \leq 10$.

Output

A single integer represents the minimum cost.

Sample Input

```
4 2 2 1
1 1 1 0
0 0 0 5
```

Sample Output

```
10
```

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