

# Journey with Pigs

[English](#)

[Vietnamese](#)

Farmer John has a pig farm near town A. He wants to visit his friend living in town B. During this journey he will visit  $n$  small villages so he decided to earn some money. He takes  $n$  pigs and plans to sell one pig in each village he visits. Pork prices in villages are different, in the  $j$ -th village the people would buy a pork at  $p_j$  rubles per kilogram. The distance from town A to the  $j$ -th village along the road to town B is  $d_j$  kilometers. Pigs have different weights. Transporting one kilogram of pork per one kilometer of the road needs  $t$  rubles for addition fuel.

Help John decide, which pig to sell in each town in order to earn as much money as possible.

## Input

The first line of the input file contains integer numbers  $n$  ( $1 \leq n \leq 1000$ ) and  $t$  ( $1 \leq t \leq 10^9$ ). The second line contains  $n$  integer numbers  $w_i$  ( $1 \leq w_i \leq 10^9$ ) — the weights of the pigs. The third line contains  $n$  integer numbers  $d_j$  ( $1 \leq d_j \leq 10^9$ ) — the distances to the villages from the town A. The fourth line contains  $n$  integer numbers  $p_j$  ( $1 \leq p_j \leq 10^9$ ) — the prices of pork in the villages.

## Output

Output  $n$  numbers, the  $j$ -th number is the number of pig to sell in the  $j$ -th village. The pigs are numbered from 1 in the order they are listed in the input file.

## Sample

**Input:**

```
3 1
10 20 15
10 20 30
50 70 60
```

**Output:**

```
3 2 1
```