



COMPETITIE

PROG-A-THON

1: Group Project

Level: easy

Time limit: 1.000 seconds

You are following a course where you have to do a group project. Unfortunately, the groups are assigned randomly. In the group you end up with, your group mates do not seem to take any initiative for the project, and therefore you become the dedicated coordinator of the group.

There are a certain amount of tasks that need to be done by the group mates for the project, and you allow everyone to choose a certain task that they want to do. They are all able to do these tasks without you having to put in any effort. Unfortunately, some of the tasks are not chosen by anyone, and you will have to persuade some of your group mates to choose another task. You want to minimize the total time you need to persuade your group mates.

Input

The input starts with a line with two integers n and k ($1 \leq k \leq n \leq 10^5$), where n is the number of group mates you have and k is the number of tasks you need to distribute among your group mates.

The second line of the input consists of n integers a_1, \dots, a_n ($1 \leq a_i \leq k$ for all $1 \leq i \leq n$), where a_i is the task chosen by the i -th group mate.

The third line of the input consists of n integers b_1, \dots, b_n ($1 \leq b_i \leq 10^9$ for all $1 \leq i \leq n$), where b_i is the time that you need to persuade the i -th group mate to do a different task (every task that is not his chosen task will take you an equal amount of effort to persuade him to do). Furthermore, a group mate will only do at most one task.

Output

Output the minimum total time that you need to spend persuading your group mates to get all tasks done.

Sample input 1

```
8 7
2 2 1 2 7 1 3 2
8 10 7 11 4 6 8 5
```

Sample input 2

```
3 3
2 3 1
6 4 2
```

Sample output 1

```
19
```

Sample output 2

```
0
```