

1.Topic:
Dismiss the department

2.Description:

Plot:

Kevin is the CEO of a large company. Recently, because of the big budget deficit of the company, he decides to cut insignificant departments. However, there are tight links between departments. Once a higher level department is cut, the lower department, which is attached to this department, will also be killed. Kevin has two lists. The first list contains IDs for each departments in the company and the second list contains the corresponding IDs of their parent department.

Now, it's time to choose a department to be cut. Kevin wants to know all of the departments that will be cut once a department is dismissed or killed.

Task:

Given the two lists, and an ID representing a department you want to cut, return a list of IDs of departments that will be cut in the end.

Remember that when a department is killed, all its sub-departments will be cutted.

The result should be sorted in ascending form.

I/O format:

Input:

First line:

A number denote the size of input ID list.

Second line:

ID list

Third line:

The parent ID list.

Fourth line:

A number denote the department ID to kill.

Output:

A list contains the ID to kill in ascending format.

Example:

Input:

4

1 3 10 5

3 0 5 3

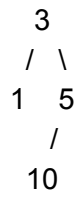
5

Output:

5 10

Comment:

3 is the parent department of 1, and 0 is the parent department of 3. The tree is below.



so, killing 5 would also kill 10.

Submit Requirement:

Time limit: 1s

Memory limit: 16MB

Program usage:

Your program should take standard input and generate standard output:

myProgram < input.txt > output.txt

