Sample Programming Problem

Problem Statement

Two lists of positive numbers are given. In each of the two lists, the numbers are sorted in *descending* order. Find the following:

1. The average of all numbers in the two lists to the nearest integer. The integer should be **less than or equal to** the average of all the numbers in the two lists.
2. A combined list that contains all the elements in the two input lists in descending order.

INPUT

- The first line contains the first list - a series of positive integers sorted in descending order. The line ends with -1.
- The second line contains the second list - a series of positive integers sorted in descending order. The line ends with -1.

OUTPUT

- The first line should contain an integer which is a nearest to the average of all the numbers in the lists. The integer should be **LESS THAN OR EQUAL TO** the average of all the numbers in the two lists.
- The second line should contain all the numbers in the two lists in descending order.

EXAMPLE

INPUT

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

OUTPUT

```
3
6 4 3 2
```

Explanation

The average of the four numbers in the two lists is 3.75. The nearest integer which is less than or equal to the average is 3. The second line contains all the number in the two lists arranged in the descending order.