**Greater Number**

You are given two arrays where the elements of the first one are subset of the elements of the second one. For each element in the first array, find the next greater element in the second array, starting at the position of the given element.

**Input**

* Read from the standard input.
* On the first line will be the first array of numbers, separated by comma.
* On the second line will be the second array of numbers, separated by comma.

**Output**

* Print the result on the standard output.
* The result should be the numbers, separated by comma.

**Constraints**

* All elements will be unique (the elements from the first array are unique in the first array, the elements from the second array are unique in the second array).
* The length of both arrays would not exceed 1000.

**Sample tests**

**Input**

4,1,2

1,3,4,2

**Output**

-1,3,-1

**Explanation**

* For 4 only 2 is to its right in the second array. There is no greater element, so output -1.
* For 1 the elements to its right in the second array are [3, 4, 2]. The first greater element is 3.
* For 2 there are no elements to its right in the second array, so output -1.

**Input**

2,4

1,2,3,4

**Output**

3,-1

**Explanation**

* For 2 the elements to its right in the second array are [3, 4]. The first greater element is 3.
* For 4 there are no elements to its right in the second array, so output -1.