

# Problem 1122: Relative Sort Array

## Problem Information

Difficulty: [Easy](#)

Acceptance Rate: 75.01%

Paid Only: No

Tags: Array, Hash Table, Sorting, Counting Sort

## Problem Description

Given two arrays `arr1` and `arr2`, the elements of `arr2` are distinct, and all elements in `arr2` are also in `arr1`.

Sort the elements of `arr1` such that the relative ordering of items in `arr1` are the same as in `arr2`. Elements that do not appear in `arr2` should be placed at the end of `arr1` in **ascending** order.

**Example 1:**

**Input:** `arr1 = [2,3,1,3,2,4,6,7,9,2,19]`, `arr2 = [2,1,4,3,9,6]` **Output:** `[2,2,2,1,4,3,3,9,6,7,19]`

**Example 2:**

**Input:** `arr1 = [28,6,22,8,44,17]`, `arr2 = [22,28,8,6]` **Output:** `[22,28,8,6,17,44]`

**Constraints:**

`1 <= arr1.length, arr2.length <= 1000` `0 <= arr1[i], arr2[i] <= 1000` All the elements of `arr2` are **distinct**. Each `arr2[i]` is in `arr1`.

## Code Snippets

**C++:**

```
class Solution {  
public:  
    vector<int> relativeSortArray(vector<int>& arr1, vector<int>& arr2) {  
  
    }  
};
```

### Java:

```
class Solution {  
    public int[] relativeSortArray(int[] arr1, int[] arr2) {  
  
    }  
}
```

### Python3:

```
class Solution:  
    def relativeSortArray(self, arr1: List[int], arr2: List[int]) -> List[int]:
```