

## Problem H. Abo Abdo Smoothies

---

**Time limit** 2000 ms  
**Mem limit** 262144 kB  
**OS** Windows

*Abo Abdo Smoothies is a famous smoothies shop in Damascus. Naseem likes his smoothies so much that he doesn't miss getting a fresh Emperor whenever he goes to Damascus (Like when he invited Moussa, Arthur and a fourth person who is not a judge so we can't mention their name, to a quick refreshing smoothie after the HIAST camp)*

Abo Abdo has  $m$  types of smoothies on their menu. Naseem went with his  $n$  friends to Damascus and decided to pay Abo Abdo a visit. Naseem asked each friend about their preference and each friend  $i$  chose one item  $b_i$  from the menu as their preference.

Naseem went to place an order and totally forgot what his friends' preferences were, so he chose  $n$  smoothies randomly, where the type of the  $i_{th}$  smoothie he ordered is  $a_i$ , and went back to his friends.

To minimize the upset friends, Naseem is interested in finding the maximum number of friends that can possibly get the same smoothie as their preference. More formally, Naseem wants to distribute the  $n$  smoothies he ordered on his  $n$  friends so that the number of friends that their preference  $b_i$  matches the smoothie they got  $a_j$  is maximized.

Naseem is busy spending time with the fourth person. Can you find the number instead of him?

### Input

The first line of the input contains two space-separated integer numbers  $n$  and  $m$  ( $1 \leq n, m \leq 10^5$ ). The number of Naseem's friends and the number of types of smoothies Abo Abdo has on his menu, respectively.

The second line of the input contains  $n$  space-separated integer numbers  $a_1, a_2, \dots, a_n$ , where  $a_i$  is the type of the  $i_{th}$  smoothie Naseem ordered.

The third line of the input contains  $n$  space-separated integer numbers  $b_1, b_2, \dots, b_n$ , where  $b_i$  is the type the  $i_{th}$  friend prefers.

### Output

Print a single line containing a single integer number. The maximum number of friends that got a smoothie matching their preference.

**Sample 1**

Input	Output
3 3 2 1 1 2 2 2 1 3 1 1 1 1 1 1 1 4 4 2 3 2 2 4 1 1 4	2 3 0

**Note**

In the first test case, Abo Abdo has two types of smoothies on their menu and Naseem has three friends. Naseem ordered two smoothies of type 1 and one smoothie of type 2, while two of his friends prefer the smoothie of type 2 and one of his friends prefers the smoothie of type 1. He can satisfy two friends, the one who prefers the first type and one of the friends who prefer the second type, leaving one friend who prefer second type with a smoothie of the first type, so the answer is 2.