Easy Problem from Rujia Liu?

By Rujia Liu China

Timelimit: 2

Though Rujia Liu usually sets hard problems for contests (for example, regional contests like Xi'an 2006, Beijing 2007 and Wuhan 2009, or UVa OJ contests like Rujia Liu's Presents 1 and 2), he occasionally sets easy problem (for example, 'the Coco-Cola Store' in UVa OJ), to encourage more people to solve his problems :D

Given an array, your task is to find the k-th occurrence (from left to right) of an integer v. To make the problem more difficult (and interesting!), you'll have to answer m such queries.

Input

There are several test cases. The first line of each test case contains two integers **n**, **m** (1 ≤ **n**, **m** ≤ 100,000), the number of elements in the array, and the number of queries. The next line contains **n** positive integers not larger than 1,000,000. Each of the following **m** lines contains two integer **k** and **v** (1 ≤ **k** ≤ **n**, 1 ≤ **v** ≤ 1,000,000).

The input is terminated by end-of-file (EOF). The size of input file does not exceed 5 MB.

Output

For each query, print the 1-based location of the occurrence. If there is no such element, output 0 instead.

Sample Input	Sample Output
8 4 1 3 2 2 4 3 2 1 1 3 2 4 3 2 4 2	2 0 7 0

Rujia Liu's Present 3: A Data Structure Contest Celebrating the 100th Anniversary of Tsinghua University

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