Variable Sized Arrays

You are given N integer sequences and Q queries. Each query is in the following format: "a b" where a denotes the index of the sequence, and b denotes the index of the element in that sequence. Your task is to find the value of the element described in each query.

Input Format

The first line consists of N and Q separated by a space.

The following N lines contain sequences in this format: "k s_0 s_1 $s_2$$...$ s_{k-1}"

The following Q lines contain queries in this format: "a b".

Constraints

$1 \leq N \leq 10^5$
$1 \leq Q \leq 10^5$
$1 \leq \forall k \leq 3.10^5$
$N \leq \sum k \leq 3.10^5$
$0 \leq s_i \leq 10^6$
$0 \leq \forall a < N$
$0 \leq \forall b <$ size of the sequence

Output Format

Output Q lines, the ith line contains the answer of the ith query.

Sample Input

```
2 2
3 1 5 4
5 1 2 8 9 3
0 1
1 3
```

Sample Output

```
5
9
```

Explanation

For the first query, the sequence is $[1,5,4]$. Hence, the answer is 5.

For the second query, the sequence is $[1,2,8,9,3]$. Hence, the answer is 9.

Please note that the problem uses 0-based indexing