Variable Sized Arrays ☆

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Consider an n-element array, a, where each index i in the array contains a reference to an array of k_i integers (where the value of k_i varies from array to array). See the Explanation section below for a diagram.

Given a, you must answer q queries. Each query is in the format `i j`, where i denotes an index in array a and j denotes an index in the array located at $a[i]$. For each query, find and print the value of element j in the array at location $a[i]$ on a new line.

Click here to know more about how to create variable sized arrays in C++.

Input Format

The first line contains two space-separated integers denoting the respective values of n (the number of variable-length arrays) and q (the number of queries).

Each line i of the n subsequent lines contains a space-separated sequence in the format `k a[i]`$_0$ `a[i]`$_1$ … `a[i]`$_{k-1}$ describing the k-element array located at $a[i]$.

Each of the q subsequent lines contains two space-separated integers describing the respective values of i (an index in array a) and j (an index in the array referenced by $a[i]$) for a query.

Constraints

- $1 \leq n \leq 10^5$
- $1 \leq q \leq 10^5$
- $1 \leq \forall k \leq 3 \cdot 10^5$
- $n \leq \sum k \leq 3 \cdot 10^5$
- $0 \leq \forall i < n$
- $0 \leq \forall j < k$
- All indices in this challenge are zero-based.
- All the given numbers are non negative and are not greater than 10^6

Output Format

For each pair of i and j values (i.e., for each query), print a single integer denoting the element located at index j of the array referenced by $a[i]$. There should be a total of q lines of output.

Sample Input

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

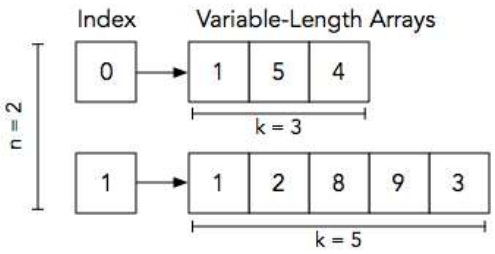
```
0 1
1 3
```

Sample Output

```
5
9
```

Explanation

The diagram below depicts our assembled Sample Input:



We perform the following $q = 2$ queries:

1. Find the array located at index $i = 0$, which corresponds to $a[0] = [1, 5, 4]$. We must print the value at index $j = 1$ of this array which, as you can see, is 5.
2. Find the array located at index $i = 1$, which corresponds to $a[1] = [1, 2, 8, 9, 3]$. We must print the value at index $j = 3$ of this array which, as you can see, is 9.

Change Theme C++

```
17      cin>>q;
18      int i,element,a,b,j;
19      for(i=0;i<n;i++)
20      {
21
22          cin>>element;
23         // Row row[element];
24          for(j=0;j<element;j++)
25          {
26              cin>>x;
27              Row.push_back(x);
28          }
29          matrix.push_back(Row);
30          Row.clear();
31      }
32      for(i=0;i<q;i++)
33      {
34          cin>>a>>b;
35          cout<<matrix[a][b]<<"\n";
36      }
37      return 0;
38  }
```

Line: 38

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- Test case 0
- Test case 1
- Test case 2
- Test case 3
- Test case 4
- Test case 5
- Test case 6

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Hidden Test Case

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