The postman

Originally taken from:

https://szkopul.edu.pl/problemset/problem/nsSLrY6UH0E6VMOb3k5kOAtO/site/?key=statement

You have directed graph (not multigraph) of n vertices and m edges. Find sequence which visit every edge exactly once and starts end ends in vertex 0.

However there is some other specific rule: There is k sequences of vertices and each of then should be unbroken subsequence of your sequence.

Decide if such sequence exists and if exists, find any of then.

Limits

- $n \le 50\,000$
- $m \le 200\,000$
- Sum of length of k sequences $\leq 1\,000\,000$