TRAVEL

ManUtdTravel is an international renowned travelling company. Their programs consist of N different interesting destinations (named from 1 to N) in Manchester city of England, in which there are up to K ones comprising most modern wonders of the world, such as Old Trafford stadium, Carrington training centre, etc. Serving tourists, ManUtdTravel opens M direct airlines among those destinations (even though they are in the city, traveling by plane is exciting). All of airlines are two-way, however, prices are different in each way. Because of being fond of tourism, Sir Alex Ferguson himself designed a specialized tour fulfilling those requirements:

- Starting from a destination where there is a wonder.
- Coming to other destinations without limitations, but having to pass all K ones, each at least one time.
- The cost is minimum.

Nonetheless, in order to attract more tourists, ManUtdTravel has special offers:

- Each tourist stepping on a destination consisting of a wonder at the first time will be awarded a voucher.
- Each voucher can be used unlimited times.
- If the tourist has T vouchers, the cost of the airline he's using will be deducted T x 10%, after subtracting it will be rounded down to nearest integer.

To prove that you are a truly fan of Manchester United, you must design a tour suiting "Hairdryer"'s requirements.

Input

- First line contains integers N, M, K.
- Next M lines are 4 integers u, v, c_1, c_2 describing there is an airline between 2 destinations u and v, and the costs c_1 and c_2 in each way.

- Final line is comprised of K integers, which are numbers of places having wonders.

Output

- Printing on a single line only an integer which is the cost of the tour if existing, otherwise print
  -1.

Example

Sample input	Sample output
6 7 2 1 2 1 1 2 3 2 2 3 4 3 3 4 5 4 4 5 6 5 5 6 1 6 6 1 4 7 7 1 5	6

Explanation

- The route of the tour: 1 – 2 – 3 – 4 – 5.

Limitations

- $0 < N \leq 2000$
- $0 \leq M \leq 10000$
- $0 < K \leq 7$
- $0 < c_1, c_2 \leq 1000$