Problem H: Headline Heat

Time limit: 2 seconds

The German ICPC scene is widely considered one of the most competitive. At least, that's what we tell our students. Countless rivalries form a complex web of envy, despair, glory, and triumph woven around and manifested in the unrelenting echoes of two scoreboards – Winter Contest and GCPC. While generations of participants tend to forget the grudges of their predecessors, we coaches, acting as timeless beacons of continuity, preserve these petty conflicts between long forgotten teams. Striving for perfect balance, we express our dedication to our coaching duties in a furious outcry on social media against every unfair news article. That is, a coach gets mad if a news article is published that contains a rival university name more often than their own.

RANK	TEAM		SCORE	
1	Participants	**Kindergarten Timelimit** Karlsruher Institut für Technologie	**13**	1041
2		**Seems to be O(k!)** Hasso-Plattner-Institut	**13**	1234
3		**<(OvO)>** Universität des Saarlandes	**12**	1080
4		**Infinite Loopers** Karlsruher Institut für Technologie	**12**	1178
5		**Don't Starve TUMgether** Technische Universität München	**11**	952
6		**cracK IT** Karlsruher Institut für Technologie	**11**	1450
7		**destructor college** Constructor University Bremen	**10**	751
8		**r/wth** Rheinisch-Westfälische Technische Hochschule Aachen	**10**	912
9		**Burnoutverbot** Hasso-Plattner-Institut	**10**	1041
10		**ËMAË** Constructor University Bremen	**10**	1249

Top 10 scoreboard of Winter Contest 2024.

To smoothen the waves of conflict in this ocean of rage, a newly appointed authority is tasked with proofreading media coverage of GCPC and Winter Contest to prevent uneven coverage.

Input

The input consists of:

- One line with the number of universities n, rivalries m, and articles k. ($1 \leq n, m, k \leq 10^5$)
- n lines containing the name of a university p_i.
- m lines containing two integers u, v, meaning that universities u and v are rivals. ($1 \leq u, v \leq n, u \neq v$)
- k lines containing a news article t_i.

If a university u is a rival of university v, then v is also a rival of u. Moreover, there are no duplicate rivalries.

Names and articles are strings of lowercase Latin letters and spaces. The first and last character of a name or article are never a space. Names can overlap and be contained in other names.

The summed length of all names and articles is at most 10^6, i.e. $\sum_{i=1}^{n} |p_i| + \sum_{i=1}^{k} |t_i| \leq 10^6$.

Output

For each article, output "`no`" if it will draw the wrath of at least one coach and "`yes`" otherwise.

Sample Input 1

```
3 1 4
hpi
fau
kit
1 3
kit destroys hpi at wintercontest
gcpc is great
team moshpit from hpi beats kit teams
whats the abbreviation for university of erlangen nuremberg
```

Sample Output 1

```
yes
yes
no
yes
```

Sample Input 2

```
6 3 5
uds
cu
tum
rwth
uni ulm
uni
4 1
2 5
1 3
last gcpc rwth had a team in top ten two places behind tum
who is team debuilding from constructor university bremen
top ten teams last year are from kit cu uds hpi tum and rwth
uni ulm cu uni ulm
sunday alright lets go
```

Sample Output 2

```
no
yes
no
no
yes
```