WC '95 P4 - Wildcard

Time limit: 1.0s **Memory limit:** 16M

Woburn Challenge 1995

Wouldn't it be nice to list all of your files that end with the suffix `.PAS`, or only those containing the string `TST`? Wouldn't it be nice to retrieve all seven-letter words beginning with `PSY` from an electronic dictionary?

If you haven't guessed by now, you must write a program that will match strings in a list to various patterns. To make the problem interesting, patterns can have the following *wildcards*:

- `?` - matches any single character
- `*` - matches any series of 0 or more characters

For example, the pattern `*.PAS` matches all strings ending with the suffix `.PAS` (e.g. `PRIME.PAS`, `PRINTER.PAS`). The pattern `*TST` matches all strings containing the substring `TST` (e.g. `TSTING.PAS`, `PRIME.TST`, `ATSTART.EXE`, `TST`). The pattern `PSY????` matches all seven-letter words with the prefix `PSY` (`PSYCHIC`, `PSYCHED`, `PSYCHOS`).

Write a program that can look for matches to a given pattern which can contain any number of wildcards.

Input Specification

The first line will contain a number N in the range $1 \ldots 1\,000$, the number of words in your "matching dictionary".
The next N lines each contain a unique word for your dictionary. These words will contain only the uppercase letters `A` ... `Z` and periods and be 20 characters or less.
The next 5 lines each contain a pattern which your program should find the matches for. These strings will contain only uppercase letters, periods, and the wildcards `?` and `*`.

Output Specification

For each of the 5 search patterns, output a comma-separated list of all the matches found in the dictionary. The results should appear in the same order as given in the dictionary. If no match is found output `NO MATCH`.

Sample Input

```
6
BELLS
TELLS
FALLS
DOLLS
DULLS
DOLLIES
SELLS
*ELLS
D?LLS
D?LL*
*LL*
```

Sample Output

```
NO MATCH
BELLS, TELLS
DOLLS, DULLS
DOLLS, DULLS, DOLLIES
BELLS, TELLS, FALLS, DOLLS, DULLS, DOLLIES
```