

Pattern match

X89013_en

Write a function `pattern_match()` with two strings as input parameters. The first one serves as a pattern and all its characters are lowercase letters but exactly one that is character `*`. The second one is a string of lowercase letters. Given as first parameter the pattern string `s*t` where `s` and `t` are respectively the prefix and suffix delimited by `*`, the function returns `true` when the second parameter is a string of length greater than or equal to the sum of the lengths of `s` and `t` (that is, the length of the pattern minus one) and its first characters are the `s` ones and its last characters are the `t` ones (that is, `s` and `t` are respectively a prefix and a suffix of the second parameter). The function returns `false` otherwise.

For example, if the pattern is `as*to` and the second parameter is `astuto` the result is `true`. Instead, it is `false` if the second is `ato` or `salto`.

Use the `pattern_match()` function to solve the input/output problem below.

Exam score: 4 Automatic part: 40%

Input

The input is a sequence of cases. Each case is made up of a pattern string, which has exactly one character `*` and the rest are lowercase letters, a non-negative integer k , and finally a list of k strings of lowercase letters.

Output

For each case, the pattern and the words in the list that match the pattern are printed, as shown in the example.

Sample input

```
as*to 9
ato astuto aso astro casto astillero pasto asalto asalto
asalto

*ante 7
antebrazo pedante cantante ante remante remate pedante
cantante
ante
remante

pre* 5
prefijo predecesor preliminar profeta rema

al*e 5
aleta almirante apele cale alerte

x*x 3
x xx xxx

* 6
uno dos tres cuatro cinco seis
```

Sample output

```
as*to:
ato astuto aso astro casto astillero pasto asalto asalto
asalto

*ante:
antebrazo pedante cantante
ante
remante

pre*:
prefijo
predecesor
preliminar

al*e:
almirante
alerte

x*x:
xx
xxx

*:
uno
dos
tres
cuatro
cinco
seis
```

Observation

Complete the following program:

```
//pre: ....write documentation...
//
//post: ...write documentation----
bool pattern_match(.... ) {
    ....
    ....
}

int main() {
    ....
    ....
}
```

Problem information

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