**Initial data**

There is a single integer in first line *N* (1 ≤ *N* ≤ 105) — word counts found in texts. Each of the next *N* lines contains word *wi* (sequence of non-empty lowercase Latin letters no longer then 15) and integer *ni* (1 ≤ *ni* ≤ 106) — number of times that word meets in texts. Word and number separated with single space. No one word repeated more then once. In (*N* + 2) line contains number *M* (1 ≤ *M* ≤ 15000). In next *M* lines contains words *ui* (sequence of non-empty lowercase Latin letters no longer then 15) — beginning of words, input by user.

**Result**

For each of *M* lines display the most frequency words that begins with *ui*  in decreasing order of frequency. In case of equals frequency of word must be sort alphabetically. If there is more than ten variants take first ten of them. Variants of possible complement must be separated with line breaks.

**Example**

|  |  |
| --- | --- |
| **Initial data** | **Result** |
| 5  kare 10  kanojo 20  karetachi 1  korosu 7  sakura 3  3  k  ka  kar | kanojo  kare  korosu  karetachi  kanojo  kare  karetachi  kare  karetachi |

**Solution must follow next requirements:**

* Program must be console application.
* Solution for VS 2013, 2012, 2010 or 2008
* Solution must be quick (no longer than 10 seconds) and correctly with test file test.in.