**Problem G.** *Questions and answers.*

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The database of the Pentagon contains a top-secret information. We don’t know what the information is — you know, it’s top-secret, — but we know the format of its representation. It is extremely simple. We don’t know why, but all the data is coded by the natural numbers from 1 up to 5000. The size of the main base (we’ll denote it be ***N***) is rather big — it may contain up to 100 000 those numbers. The database is to process quickly every query. The most often query is: “*Which element is i-th by its value?*”— with *i* being a natural number in a range from 1 to ***N***. Your program is to play a role of a controller of the database. In the other words, it should be able to process quickly queries like this.

**Input.**

The standard input of the problem consists of two parts. At first, a database is written, and then there’s a sequence of queries. The format of database is very simple: in the first line there’s a number ***N***, in the next ***N*** lines there are numbers of the database one in each line in an arbitrary order. A sequence of queries is written simply as well: in the first line of the sequence a number of queries ***K*** (1 ≤ ***K*** ≤ 100) is written, and in the next ***K*** lines there are queries one in each line. The query “*Which element is i-th by its value?*” is coded by the number *i*. A database is separated from a sequence of queries by the string of three symbols “#”.

**Output.**

The output should consist of ***K*** lines. In each line there should be an answer to the corresponding query. The answer to the query *i* is an element from the database, which is *i*-th by its value (in the order from the least up to the greatest element).

**Sample input.**

5

7

121

123

7

121

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4

3

3

2

5

**Sample output.**

121

121

7

123