Objective

Today, we're learning about Key-Value pair mappings using a Map or Dictionary data structure. Check out the <u>Tutorial</u> tab for learning materials and an instructional video!

Task

Given n names and phone numbers, assemble a phone book that maps friends' names to their respective phone numbers. You will then be given an unknown number of names to guery your phone book for. For each *name* gueried, print the associated entry from your phone book on a new line in the form name=phoneNumber; if an entry for *name* is not found, print Not found instead.

Note: Your phone book should be a Dictionary/Map/HashMap data structure.

Input Format

The first line contains an integer, n, denoting the number of entries in the phone book. Each of the *n* subsequent lines describes an entry in the form of 2 space-separated values on a single line. The first value is a friend's name, and the second value is an 8-digit phone number.

After the n lines of phone book entries, there are an unknown number of lines of queries. Each line (query) contains a *name* to look up, and you must continue reading lines until there is no more input.

Note: Names consist of lowercase English alphabetic letters and are *first names* only.

Constraints

- $1 \le n \le 10^5$ $1 \le queries \le 10^5$

Output Format

On a new line for each query, print Not found if the name has no corresponding entry in the phone book; otherwise, print the full *name* and *phoneNumber* in the format name=phoneNumber.

Sample Input

sam 99912222 tom 11122222 harry 12299933 sam edward harry

Sample Output

sam=99912222 Not found harry=12299933

Explanation

We add the following n = 3 (*Key,Value*) pairs to our map so it looks like this:

$$phoneBook = \{(sam, 99912222), (tom, 11122222), (harry, 12299933)\}$$

We then process each query and print key=value if the queried **key** is found in the map; otherwise, we print Not found.

Query 0: sam

Sam is one of the keys in our dictionary, so we print sam=99912222.

Query 1: edward

Edward is not one of the keys in our dictionary, so we print Not found.

Harry is one of the keys in our dictionary, so we print harry=12299933.