1. Aliases

Program Name: Aliases.java   **Input File: aliases.dat**

Ms. Jones wants to post the grades of her students on the wall but does not want to use any student's actual name for privacy reasons. You are to write a program for her that will create an alias for a given student using Ms. Jones's formula. The alias of a name on her alphabetized roll will be determined by adding the square of its position p on the roll, $1 <= p <= n$, to the square of the number of characters in the student's name.

For example, if George is the 3rd name on her roll, his alias would be 45 because $3^2 + 6^2 = 45$

Input
- The first line of input will contain a single integer n that indicates the number of lines to follow.
- Each the following n lines will contain a list of m unique names in alphabetical order and separated by a comma and a single space.
- The first $m-1$ names in the list are the names on Ms. Jones' roll.
- The last name in the list is the target name for which you are to find its alias.

Output
For each target name, you will print its alias, each on a separate line.

Example Input File
```
3
Dirk, Evan, George, Harry, Larry, Mo, George
Ann, Beth, Joe Don, Lester, Joe Don
Ben, Carol, Elizabeth, Frank, Gene, Henry, Ted, Zach, Zach
```

Example Output to Screen
```
45
58
80
```