Kapil and Deepak are planning for the Engineer's day celebration at Graphic Era Hill University. Kapil have an idea for the design of the banner for the TechGeeks club. He wants the banner to be different and triangular in shape. Whereas Deepak wants banner to be in regtangular shape. Eventually they came up with a plan that, they will ask 'N' number of students to vote for the shape of banner and the shape with maximum votes will be the shape of banner. The students always vote the shapes 'Rectangle' and 'Triangle' alternatively. If first student always votes for 'Rectangle', you have to figure out the shape of banner.

Input
First line will be integer **T**, number of test cases
Then T space separated integers **N**, number of students

Output
A string 'rectangle' or 'triangle' for each test case on newline.
lowercase

Sample Case:
Input:
        2
        5 11
Output:
        rectangle
        rectangle

After Kapil and Deepak have decided the design of the banner, they started looking for the volunteers for the planning of the 'Appathon' event. A student can be a volunteer if he/she is from either BCA or BTech and he/she must not be in their freshman year.
Help them figure out how many volunteers they can find?

There are three courses BBA, BCA and BTech coded as 1, 2, and 3 respectively.

The student would be a structure:

```
typedef struct{
    int course;
    int semester;
}Student;
```

Input
First line will be integer **T**, number of test cases
Then T lines with two space separated integers **c** and **s** on each line.
c, course of the student
s, semester of the student

Output
An integer telling how many volunteers they can get.

Sample Case:

Input:
    7
    1 3
    2 5
    2 1
    1 3
    3 2
    1 3
    2 2

Output:
    1

The Engineers Day is celebrated on September 15th. Kapil somehow thinks it is celebrated on 14th of September. Mohak comes up with an idea to illustrate this with the help of stack. There are 4 events scheduled in the month of September which are as follows:
1. September 9, 2022 {Induction Program-I}
2. September 13, 2022 {Induction Program-II}
3. September 14, 2022 {Preliminary Programming}
4. September 15, 2022 {Appathon}

You'll be given an array of size n containing the calender dates for n-days in the month of September and the corresponding stack of strings of size n denoting the event planned for that day. The blank string means there's no event that day. For a query string of event e you have to tell on what date that event is scheduled if event e is not scheduled , return 0.

Input
First line will be integer **n**, number of days
Then n lines with two space separated integers **c** and string **s** on each line.
c, date
s, event planned
Then query string of event e.

Output

An integer telling on which date event **e** is planned.

Sample Case:

Input:

      4

      9   "Induction Program-I"

      13 "Induction Program-II"

      14 "Preliminary Programming"

      15 "Appathon"

     "Appathon"

Output:

      15