6. Mailboxes, Etc.

Program Name: Mail.java **Input File: mail.dat**

"I need to open as many of these mailboxes as possible," you mutter to yourself, as you eye the P.O. boxes before you. You examine the clay master key in your left hand and ponder the mailbox layout sheet in your right. You know that the clay master key will open any of the mailboxes, but will crumble after a single use. From the mailbox layout, you know which mailboxes are empty and which contain numbered keys that open other mailboxes. Write a program to find the maximum number of mailboxes you are able to open with a single use of a master key (continuously opening any unopened mailboxes you subsequently find keys to).

Input

- The first line will contain a single integer `n` that indicates the number of data sets to follow.
- Each data set will consist of:
  - A line containing an integer `b` that indicates the number of mailboxes, 1 <= `b` <= 30.
  - The next `b` lines will describe the contents of each mailbox:
    - The first line corresponds to mailbox #1, the second line corresponds to mailbox #2, etc.
    - Each contents line will consist of an integer `k` followed by a space-separated list of `k` unique ordered integers, with each integer representing a key to the mailbox with that number.

Output

For each data set in the input, output a single line "`X`", where `X` is the maximum number of mailboxes you are able to open with a single use of a master key (continuously opening any unopened mailboxes you subsequently find keys to).

Example Input File

```
3
3
0
2 1 3
1 1
3
1 1
1 2
0
3
1 2
1 3
0
```

Example Output to Screen

```
3
1
3
```