

British Informatics Olympiad Final

12–14 April, 2002

Sponsored by Lionhead Studios

Film — Part One

Greenlight Casting Couch is a prolific, if little known film studio. Their pool of actors is rather limited and so many films are made with the same cast. To cash in on the current DVD craze they are planning on re-releasing as much as their back catalogue as possible.

Experience has taught the studio that public is fickle and only specially designed ‘collectors’ box-sets will sell. A suitable box-set is a group of films which have exactly the same cast and whose cast members do not appear in any other films.

Given a list of actors and the films they have appeared in, determine which suitable box-sets exist. Note that some films (and actors) might not appear in any of the box-sets.

The input will consist of a sequence of lines, each containing two numbers. The first number a_i ($1 \leq a_i \leq 100$) identifying an actor and the second f_i ($1 \leq f_i \leq 100$) identifying a film the actor has appeared in. The input will be terminated by the line `-1 -1`.

The first line of your output should be a single integer indicating the number of suitable box-sets. You should then output the contents of each box-set, one box-set per line; each line should begin with the number of films in that box-set, followed by a list of its films.

Sample Input

```
2 3
4 5
1 1
2 7
1 5
6 3
6 2
4 1
8 8
-1 -1
```

Sample Output

```
2
2 1 5
1 8
```