Your submitted solution is only **valid if it contains the following paragraphs** at the top of the program. Please ***fill*** in ***your name*** and ***Neptun code***.

```
/*
<NAME>, <NEPTUN>
This solution was prepared and submitted by the student stated above for the
assignment of the Programming course. I declare that this solution is my own
work. I have not copied or used third party solutions. I have not passed my
solution to my classmates, neither made it public.
Students' regulation of Eötvös Loránd University (ELTE Regulations Vol. II.
74/C.§) states that as long as a student presents another student's work -
or at least the significant part of it - as his/her own performance, it will
count as a disciplinary fault. The most serious consequence of a disciplinary
fault can be dismissal of the student from the University.
*/
```

Snowball fight

There was a multi-roung snowball fight. We were registered who threw how many snowballs.

Write a program that determines the followings:

1. In how many rounds did a participant throw exactly 40 snowballs?
2. Who (with index) threw the most snowball?
3. How many participants and who (with index) threw more than M snowball?
4. Did it happen, that somebody threw less snowball than the someone else's minimum snowball?

Input

The first line of the *standard input* contains the number of participants ($1 \le N \le 1000$), and the given M number ($1 \le M \le 2000$). Afterward, there are N lines, one line for each participant. Each line contains the number of the snowball fight ($1 \le R \le 1000$), it is followed by R integers those mean the number of snowballs in the snowball fight ($1 \le G \le 2000$).

Output

You have to write exactly 4 lines into the *standard output*. Each line must contain an answer for the given question in the given order. First line contains a number, the number of rounds where there were thrown exactly 40 snowballs. The second line contains the index of the participant who threw the most snowball. The third line contains the number of the participants and their indexes separated by space who threw more than M snowball. The last, fourth line contains YES or NO that answers the fourth question.

Example

Input	Output
6 50 4 10 10 10 10 4 14 40 16 12 4 10 17 40 16 4 53 54 55 56 4 11 17 40 16 4 11 17 40 16	2 4 3 2 3 4 YES Comment: YES, because the first participant threw 40 snowball, and the fourth participant threw minimum 53 snowball in a round.

Limits

Time limit: 1.0 sec

Memory limit: 64 MB