SHEET OF EXERCISES:

Ex1:

Write a program that takes from the user a list of n numbers and uses a map to store the frequencies of each number. The program should then display all the given values along with their frequencies using an iterator. (hint: don't forget that all values in a map are initialized by default to 0).

Sample input:

10

1 4 4 1 4 5 6 6 1 1

Sample output:

1 4

4 3

5 1

6 2

Ex2:

In a class, there are n students numbered 1,2,3,….n. In that university, we have m professors who teach that class. Professors are also numbered 1,2,3,….,m. Each student prefers certain group of professors and considers them to be successful. The chef of department decided to make an investigation. This investigation composed of q queries. Each query is represented by two integers , x and y. The answer to that query is "YES" in case student number x considers professor number y to be successful. Otherwise, the answer is "NO".

The chef of the department chose you to answer his queries.

Input format and constraints:

- N and M with N and M being both inclusively between 1 and 10^5
- N lines follow, the ith line starts with an integer t representing the number of professors the ith person considers successful followed by t integers representing those professors. (0<=t<=M)
- Q such that Q is inclusively between 1 and 10^5
- Q lines follow, each containing the strictly positive integers x and y with x<=N and y<=M

Output format:

For each query, print YES if student x considers professor y to be successful. Otherwise print NO.

Sample input: 6 20

4 1 4 7 10

12 1 2 3 4 5 6 7 8 9 10 13 14

0

2 10 20

4 18 17 14 20

3 1 10 2

6

1 19

2 13

3 15

4 20

5 20

6 7

Sample output:

NO

YES

NO

YES

YES

NO