Problem A. 78015.Employees

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Memory limit:	256 megabytes

You are given information about company employees: surname, salary, age, date of birth. You should implement following functions:
GetUserWithMaxSalary()(if there are several answers then output the first of them in the input data)
GetAverageAgeOfAllEmployees()(round down to integer)
PrintAllUsersWhoseSalaryGreaterThat(int x)(output their surnames in the order which are given in the input data)

Input

In the first line you are given two integer numbers n and x - number of employees in company and number for which you must use third function.
Next n lines contain information about each employee : surname(string), salary(int), age(int), date of birth(string).

Output

Output three functions(in order which are given in statement).

Example

standard input	standard output
3 19 Baltabaeva 20 19 05.05.1999 Borash 21 20 03.11.1998 Petrov 20 18 01.01.2000	Borash 19 Baltabaeva Borash Petrov

Problem B. 78021.Exams

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Memory limit:	256 megabytes

You are given the results of all final exams of n students. Information consists name, surname of the student, total points for math, pp1, discrete structures subjects. Print out all students, whose average result greater than X.

Input

In the first line you are given two integer numbers n and X.
Next n lines contain 3 integers - points for math, pp1, descrete structures.

Output

Print their names and surnames in each line in order they are given in the input data.

Example

standard input	standard output
3 85 Alikhan Okas 85 85 85 Meirhan Ormanov 100 75 75 Balzhanov Adlet 94 94 75	Balzhanov Adlet

Problem C. 78011.Passengers

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Create the struct to store information about passenger baggage. Passenger baggage characterized by the number of things and the total weight.
Print out name of passanger who has more things than others.(if there are several answers then output the first of them in the input data)

Input

In the first line you are given n - number of Passengers.
Next n lines contain information about passengers string name (name of passenger) and two integers - number of things and total weight.

Output

Print name of passenger

Example

standard input	standard output
2 Temir 3 100 Aidos 4 5	Aidos

Problem D. 78008.Gpa

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Memory limit:	256 megabytes

In this task you should create a struct to store information about the student (full name, gpa). You are given information about n students. Output all students ordered by gpa

Input

In the first line you are given n.
Next n lines contain information about each student: two strings (name and surname) and one double number (gpa).

Output

Print student's names and surnames ordered by gpa.

Example

standard input	standard output
3 Adlet Balzhanov 3.8 Alikhan Okas 4.0 Ormanov Meirhan 3.75	Ormanov Meirhan Adlet Balzhanov Alikhan Okas

Problem E. 78539.Equals

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Memory limit:	256 megabytes

In this task you should create a struct to store information about the student (full name, gpa). You are given information about n students.Two students considered are equal if their full names and gpa match up. Also you are given two integers x and y.Output "YES"if students number x and student number y are equal and "NO"otherwise.

Input

In the first line you are given n.
Next n lines contain information about each student: two strings (name, surname) and double gpa. Last line contains x and y

Output

Print YES or NO

Example

standard input	standard output
3 Alikhan Okas 3.32 Alikhan Okas 3.32 Meir Ormanov 3.5 1 2	YES

Problem F. 78557.Dates

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Memory limit:	256 megabytes

In this task you should create a struct Person. You are given information about n persons. Each person has name and date of birth.Output the name of the oldest person(if there are several answers, output the lexicographically minimal answer)

Input

In the first line you are given n.
Next n lines contain information about each person: two strings (name and date of birth)

Output

Print answer

Example

standard input	standard output
3 Alikhan 24.12.2009 Aibar 11.10.2001 Temirlan 07.10.2017	Aibar

Problem G. 78657.Directors

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Memory limit:	256 megabytes

The Film library is organized in the form of an array of structures with fields: the name of the film, the cost, the director. You have to find how many different Directors in the given list of films.

Input

First line contains n - number of films.
Next n lines contain information about films: two strings : name of the film and name of the director and one integer cost.

Output

Output one integer number - answer.

Example

standard input	standard output
3 TheDarkKnight ChristopherNolan 100 Interstellar ChristopherNolan 1000 ACMICPC Vasya 10000	2

Problem H. 78887.Circles

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Memory limit:	256 megabytes

You are given n circles on a 2D plane. You are given indices of two circles. If they intersect print YES, otherwise print NO

Input

First line contains one integer number n - number of points.
Next n lines contain three integer numbers x, y, r. (point (x,y) - center of the circle and r - radius)

Output

print YES or NO

Example

standard input	standard output
2 1 1 1 2 2 2 1 2	YES

Problem I. 78886.Points

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

You are given n points on a 3D plane. Your task is to print their x+y+z in non decreasing order of points(sort them firstly by x, then by z, then by z)

Input

First line contains one integer number n - number of points.
Next n lines contain three integer numbers x, y, z.

Output

Print x+y+z of points in each line

Example

standard input	standard output
4 0 0 0 -1 -1 -1 3 3 3 -2 -1 100	97 -3 0 9

Problem J. 78883.3D

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

You are given n points on a 3D plane. Your task is to print their indices in order of not decreasing their x+y+z.

Input

First line contains one integer number n - number of points.
Next n lines contain three integer numbers x, y, z.

Output

Print indices of points

Example

standard input	standard output
4 1 1 1 -1 -1 -1 0 0 0 10 9 8	2 3 1 4