

Problem A.

Input file: **standard input**
Output file: **standard output**
Time limit: 2 seconds
Memory limit: 64 megabytes

You are given N competitors. Find those who passed to the next round. Competitor will pass to next round if he gains more than or equal K points.

Input

First line contains N - number of competitors. Next N line contains info about competitors: First Name, Last Name, and Point. Last line contains K.

Output

Print number of competitors who passed to next round. And print info about them in ascending order by name. If names are equal order by surname in ascending order. If surnames are equal order by points in descending order.

Examples

standard input	standard output
2 A B 12 A B 1 1	2 A B 12 A B 1
3 A U 12 C D 1 A G 120 10	2 A G 120 A U 12

Problem B. rootfinder1

Input file: `standard input`
Output file: `standard output`
Time limit: 2 seconds
Memory limit: 64 megabytes

You are given string. Remove all non-digit chars. Write function for finding the integer part of the root for number which constructed from leaved chars.

Input

string with maximum length less than 9 chars. string can contain space.

Output

integer number

Example

standard input	standard output
k1b4t4u	12

Problem C.

Input file: `standard input`
Output file: `standard output`
Time limit: 2 seconds
Memory limit: 64 megabytes

You are given string and char in separate lines. Write function to finding the number of occurrences of char in given string with case insensitive mode.

Input

Two lines.

Output

One number

Examples

standard input	standard output
hello world! o	2
Hi there, I need some help with my code. i	3