Kings without ruling children

We store information about the birth and ruling years of kings of the Árpád dynasty. We only investigate years where there was continuously a king, and only one at a time, and each king ruled only for one interval.

Write a program that gives the count of kings who had children, but none of their children became kings.

Input

The first line of the *standard input* contains the count of kings ($1 \le N \le 100$). The next N lines each contain the information about a king: the beginning and the end of their rule ($0 \le year_1, year_2 \le 2000$), and their name (names are all different). The next line contains the count of relationships of the Arpad dynasty ($1 \le M \le 1000$). The next 2*M lines contain a parent-child relationship: the first line is the parent, the second line is the child.

Output

The first line of the *standard output* should contain the count of kings who had children, but none of their children became kings.

Example

Input	*Output*
7 1046 1060 I. András 1060 1063 I. Béla 1063 1074 Salamon 1074 1077 I. Géza 1077 1095 Szent László 1095 1116 Könyves Kálmán 1116 1131 II. István 10 Vazul I. András Vazul I. Béla Vazul Levente I. András Salamon I. Béla I. Géza I. Béla Szent László I. Géza Könyves Kálmán Szent László	1

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Piroska
Könyves Kálmán
László
Könyves Kálmán
II. István
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Limits

Time limit: 0.1 second

Memory limit: 32 MB

Evaluation: In 40% of tests, the count of data is ≤ 20