Train from Székesfehérvár

We have information about the schedules of N trains from Budapest to Fonyód. It contains the arrival and departure times of the intermediate stations, as well.

Write a program that gives a train that sets off from Szekesfehervar.

Input

The first line of the *standard input* contains the count of trains (1≤N≤100)The next N lines each contain a station name (without accents), an arrival time and a departure time. Times are given in minutes within the day, so the maximum is 24*60. All trains arrive before midnight. If the arrival time is not interpretable, there is "-1" in the input. If the departure time is not interpretable, there is "9999" in the input. Data are in increasing order of time.

Output

The first line of the *standard output* should contain the departure time of the train that sets off from Szekesfehervar. If there is no such train, you should write -1. If there is more than one solution, you should write out the one with the smallest index.

Example

Input	*Output*
7 Budapest -1 480 Szekesfehervar 510 515 Siofok 545 550 Szekesfehervar -1 600 Siofok 630 635 Fonyod 635 9999 Fonyod 720 9999	600

Limits

Time limit: 0.1 second

Memory limit: 32 MB

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