

## Birth years

We know the birth date (year, month, day) of  $N$  people. The data are not sorted. People are identified by their indexes.

Write a program that lists those years from the last 100 years in which at least one person was born.

### Input

The first line of the *standard input* contains the count of people ( $1 \leq N \leq 1000$ ). The next  $N$  lines contain the birth year, month ( $1 \leq M \leq 12$ ) and day ( $1 \leq D \leq 31$ ) of the given person. The last line contains the current date (year, month, day).

### Output

The first line of the *standard output* should contain the count of years in which at least one person was born in the last 100 years, and the list of these years in increasing order.

### Example

*Input*

```
5
1957 1 20
2000 1 22
1917 1 8
2001 2 22
1950 5 5
2013 1 9
```

*Output*

```
5 1917 1950 1957 2000 2001
```

### Limits

Time limit: 0.1 second

Memory limit: 32 MB

Evaluation: In 40% of tests, the count of data is  $\leq 20$