

Finde alle Autos, die zumindest einmal in einem gegebenen Rechteck beobachtet wurden.

Find out all cars that were at least for one observation in a given rectangle.

Input

```
Nord,Ost,Sued,West // Koordinaten des Rechtecks

Anzahl der Beobachtungen (n)
Kennz,Zeit,Laengengr,Breitengr // Beobachtung 1
...
Kennz,Zeit,Laengengr,Breitengr // Beobachtung n
```

Input

```
North, East, South, West // Coordinates of the // rectangle

Number of observations (n)

Identity, Time, Latitiude, Longitude // observation 1
...

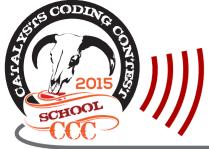
Identity, Time, Latitiude, Longitude // observation n
```

Ergebnis

List of the identities, sorted alphabetically, separated by comma

Result

List of the identities, sorted alphabetically, separated by comma



Level 3: Beispiel

Level 3: Example

Input

48.2334,15.4532,48.1023,14.9856 6

G-4398,09:00:30,48.2289,14.5287 Z-3595,09:00:30,47.0236,13.6089

0-3872,09:00:30,47.0139,13.1829

Y-2671,09:00:30,47.6607,13.609

V-5959,09:00:30,48.1501,15.4203

S-2417,09:00:30,48.7384,15.1149

Result

V-5959