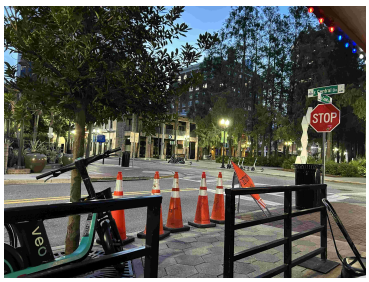
Problem F: Fighting Fraud

Time limit: 1 second



Picture of a GCPC courier. They are extremely discreet.

Got a job for you. This shady business called *Guaranteed Clandestine Private Couriers* is trying to hide something. Their public filings and tax records are spotless. As clean as a doctor's hands just before surgery. And you know what that means. They had dirt to scrub off, I'm sure of it. Got my hands on one of their drivers' delivery schedules. You know, a list of tasks to discreetly pick up and deliver an item. I bet we find something off with the schedule. Maybe an item that is picked up but never delivered. Maybe a delivery of something with no records where it came from. Heck, they might even list an item for some task long after the item has been delivered to keep the actual cargo off the books. Anyway, find out if the schedule is legit. If each item mentioned in the schedule is picked up and delivered exactly once, then the guy who cooks their books must be a genius. Guess they are paying him well. Speaking of, this one's double your regular fee. Half upfront for your discretion and the rest when I have your report. Don't call unless you're done!

Input

The input consists of:

- One line with an integer n, the length of the schedule ($1 \leq n \leq 10^5$).
- The next n lines each describe a schedule task, the ith of which contains:
  - The string "`pickup`" or "`dropoff`".
  - A string a_i consisting of English lowercase letters (`a-z`), the identifier of the item related to the ith task ($1 \leq |a_i| \leq 20$, $\sum |a_i| \leq 10^6$).

Output

Output "`yes`" if the schedule is valid and "`no`" otherwise.

Sample Input 1	Sample Output 1

`4`
`pickup apples`
`pickup oranges`
`dropoff oranges`
`dropoff apples`
	`yes`

Sample Input 2	Sample Output 2

`6`
`pickup gcpc`
`pickup teams`
`dropoff gcpc`
`pickup jury`
`dropoff teams`
`dropoff gcpc`
	`no`

Sample Input 3

```
2
dropoff books
pickup books
```

Sample Output 3

```
no
```

Sample Input 4

```
4
pickup balloon
dropoff balloon
pickup balloon
dropoff balloon
```

Sample Output 4

```
no
```

Sample Input 5

```
1
dropoff fft
```

Sample Output 5

```
no
```

Sample Input 6

```
4
pickup timelimit
pickup correct
dropoff timelimit
dropoff correct
```

Sample Output 6

```
yes
```