Trener

Mirko has been moving up in the world of basketball, starting as a mere spectator, mastering snack

salesmanship, finally reach the coveted position of the national team coach. He is now facing a difficult

task: selecting the five primary players for the upcoming match against Tajikistan.

Since Mirko is incredibly lazy, he doesn't bother remembering players' names, let alone their actual

skills. That's why he has settled on selecting five players who share the same first letter of their

surnames, so that he can remember them more easily. If there are no five players sharing the first letter

of their surnames, Mirko will simply forfeit the game!

In order to obtain insight into possibilities for his team, Mirko wants to know all the different letters

that his primary team's surnames may begin with.

Input

The first line of input contains the positive integer N (1 \leq N \leq 150), the number of players that Mirko

has available.

Each of the following N lines contains one word (at most 30 characters long, consisting only of lowercase English letters), a surname of one of the players

Output

If there are no five players that Mirko can select matching his criteria, output a single line containing

the word "PREDAJA" (without quotes). Otherwise, output all possible first letters of representation

player surnames, sorted lexicographically, in a single line with no spaces.

Example

Input:

18

babic

Dabic

keksic

boric

bukic

sarmic

balic

kruzic

hrenovkic

beslic

boksic

krafnic

pecivic

klavirkovic

kukumaric

sunkic

kolacic

kovacic

prijestolonasljednikovic

Output:

bk

Input:

6

michael

jordan

lebron

james

kobe

bryant

Output:

PREDAJA