

Problem L. 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	Output
18 babic keksic boric bukic sarmic balic kruzic hrenovkic beslic boksic krafnic pecivic klavirkovic kukumaric sunkic kolacic kovacic prijestolonasljednikovic	bk

Explication

Clarification of the example: Mirko can choose between teams with all players' surnames beginning with either 'k' or 'b'.