

Problem J. Jumps

Input file: *standard input*
Output file: *standard output*
Time limit: 1 second
Memory limit: 256 mebibytes

Dave is the director of the Summer school of skydiving. Being a responsible director, he keeps a list of jumps of each trainee in the school. After each jump, Dave appends a note to the lists of jumps of each trainee participating in that particular jump. The note is very simple, it just indicates the type number of the parachute. In this way, each trainee jump history is characterized by a list of numbers.

At the end of the season, Dave wants to categorize the trainees according to their experience with different brands of parachutes.

Two trainees belong to the same category if they have used the same types of parachutes. It does not matter how many times they have jump with any particular parachute type, what does matter is the set of the parachute types they have jumped and that has to be the same.

There are exactly nine types of parachutes in Daves school, and no trainee has jumped more than nine times, so Dave expresses each trainee list as an integer consisting of digits $1, 2, \dots, 9$ and smaller than 10^9 . He thinks that this representation will help him to process the lists programmatically by a computer.

For example, the trainees characterized by integers 234423 and 342 belong to the same category, while the trainees characterized by integers 118821 and 1189821 belong to different categories. Help Dave to calculate how many different categories of trainees attended the school this season.

Input

There are more test cases. Each case starts with a line containing one integer N ($1 \leq N \leq 1000$) representing the number of trainees. Next, there are N lines, each line contains one integer representing the list of jumps of one particular trainee.

Output

For each test case, print a single line with one integer C specifying the number of different trainee categories in the school.

Example

standard input	standard output
5	3
132	1
42	
3312	
43	
24424	
3	
222	
22	
2	