Special Ingredients

Tom is a food enthusiast, and he decided to enquire about the ingredients of each dish. There are N dishes represented by strings S1,S2,…,SN. Each ingredient used for making dishes is represented by a lowercase English letter. For each valid i, the ingredients used to make dish i correspond to characters in the string Si (note that ingredients may be used multiple times). A special ingredient is an ingredient which is present in each dish at least once.

Tom wants to know the number of special ingredients. Since Tom is too busy with work, can you help him?

**Input**

The first line of the input contains a single integer T denoting the number of test cases. The description of T test cases follows.

The first line of each test case contains a single integer N.

N lines follow. For each i (1≤i≤N), the *i-*th of these lines contains a single string Si.

**Output**

For each test case, print a single line containing one integer ― the number of special ingredients in the dishes.

**Constraints**

1≤T≤1,000

1≤N≤1,000

1≤|Si|≤200  for each valid i

S1,S2,…,SN contain only lowercase English letters

The sum of length of strings over all test cases ≤ 3500000

**Examples**

**Input**

2

3

abcaa

bcbd

bgc

3

quick

brown

fox

**Output**

2

0

**Note**

Example 1: Ingredients 'b' and 'c' are present in all three dishes, so there are two special ingredients.

Example 2: No ingredient is common to all three dishes.