Jack is back

The Titanic, a symbol of grandeur and disaster. Onboard, Rose and Jack's love story was marred by a dark twist. As the ill-fated ship struck an iceberg. **Rose intentionally pushed Jack into the icy sea**, sealing his tragic fate. Rose clung to a cargo box, surviving the Titanic's sinking. Jack, against all odds, survived. Now he is on an empty cargo box finding a way out of the icy sea.

To escape he needs to build a boat. to do that he needs $m(< 9)$ amount of distinct items. It can vary with the test case. These items can be inside the cargo boxes that are floating. Jack can only unbox maximum of two cargo boxes before he die.

Each item is labeled by a number less than $m - 1$. for example, a cargo box might contain two of item 2, one from each 3,6,7,1 items, which will be represented by "223671". if jack need 8 items to survive he'll have to find another box wich contains 0 4 and 5 boxes. your task is to find the probability of jack getting out of the icy sea to take revenge from rose.

Input Format

The first n line contains denoting the total number of cargo boxes floating on the sea. Each of the next n lines contains a string, where string on a i^{th} line denotes the type of the i^{th} item.

Constraints

- $1 <= n <= 10^6$
- $1 <=$ length of $cargobox_i <= 10^6$
- sum of lengths of all $cargobox_i <= 10^6$
- Number of items needed $= m$
- $m <= 9$ (m will not be given as an input)
- it is guaranteed that each item indexed from 0 to m will be contained in atleast one box.
- Each cargo box contains of items from $[0, m]$
- Jack must find all m items by opening only 2 boxes

Output Format

print the probability of Jack successfully building the boat, rounded to two decimal places.

Sample Input 0

```
5
012344
345
4511
023
14555
```

Sample Output 0

```
0.50
```

Sample Input 1

```
5
129300455
5559948277
012334556
56789
123456879
```

Sample Output 1

```
0.50
```