Coupon Codes

Time limit: *5000 ms*
Memory limit: *256 MB*

Brett is running a new online goodie shop. The business is booming and it has attracted tens of thousands of customers! Yet Brett is ambitious and he would like to further expand his customer base. He will run a campaign that provides discount coupon codes to new customers.

Brett will generate N coupon codes of the following format:

`XXXX-XXXX-XXXX`

where `X` is an uppercase letter `A-Z` or a digit `0-9`.

At first Brett thought he'll just randomly generate these codes. Soon he realizes that there is a serious issue - people tend to mistype their codes. Brett definitely does not want to accept a mistyped code, otherwise one customer's discount may be used by another customer!

Brett would like to know among the N coupon codes he generated how many pairs of them are *similar*. Two coupon codes are similar if their Hamming distance is exactly one. In other words, two coupon codes C_1, C_2 are similar if you can change C_1 into C_2 by modifying exactly one character in C_1.

Standard input

The first line has a single integer N.

Then N lines follow. Each line has one coupon code.

Standard output

Output a single integer, the number of pairs of coupon codes that are similar.

Constraints and notes

- $2 \leq N \leq 10^5$
- All coupon codes are distinct, and are valid according to the format above.
- For 50% of the test data, $N \leq 100$

Input	Output	Explanation
6 WELC-OMET-OTHE IEEE-XTRE-ME14 AAAA-0000-A0A0 AAAA-0000-A0A1 AAAA-0000-A0AB AAAA-0000-ABAB	4	There are 6 codes. If they are labeled from 1 to 6, the similar pairs are $(3, 4)$, $(3, 5)$, $(4, 5)$, $(5, 6)$$(3,4)$,$(3,5)$,$(4,5)$,$(5,6)$.