

After a few months of playing on his new phone, Mirko has finally decided to find a new hobby. He discovered a card game called bridge!

It is known that bridge is played by four players using a 52-card deck, 4 suits total (clubs, hearts, diamonds and spades) and 13 values (A, K, Q, J, 10, 9, 8, 7, 6, 5, 4, 3 and 2). At the beginning of the game, each player is dealt 13 cards.

Before starting the game, each player counts their so-called *honor points* in the following way:

- each ace (A) is worth 4 points
- each king (K) is worth 3 points
- each queen (Q) is worth 2 points
- each jack (J) is worth 1 point
- the remaining cards (that will be denoted with X in this task) are worth 0 points.

Given the fact that Mirko has started playing bridge only recently, he has decided to practice counting points. He dealt himself cards N times and each time counted his honor points. In the end, he added them up.

He wants to know if he's done a good job. Help Mirko and check!

INPUT

The first line of input contains the integer N ($1 \leq N \leq 10\,000$) from the task.

Each of the following N lines contains K_i , a string consisting of characters 'A', 'K', 'Q', 'J', 'X', of length 13, representing the cards Mirko had in his hand after dealing them for the i^{th} time.

OUTPUT

The first and only line of output must contain the required sum from the task.

SAMPLE TESTS

input

1
AKXAKJXXXXAXAQ

output

25

input

4
XXXXXXXXXXXXJXX
KXAXXXQJAXXXX
AQKQXXXXXXXKQX
JXXXXXJXXXXXX

output

40

Clarification of the first test case:

Mirko has a total of 4 aces, 2 kings, 1 queen and 1 jack in his hand. This totals to $4 * 4 + 2 * 3 + 1 * 2 + 1 * 1 = 25$ honor points.