

WC '17 Contest 3 J2 - Certified Fresh

Time limit: 1.0s **Memory limit:** 16M

Woburn Challenge 2017-18 Round 3 - Junior Division

A new science fiction psychological thriller action-comedy film, *The Codefather*, is being released this weekend! You'd love to go see it, but you'll first need to convince your friends that it'll be good. Fortunately, trusted movie review websites such as [Rotten Tomatoes](#) exist for this purpose!

Following its release in theatres, *The Codefather* will receive a series of N ($1 \leq N \leq 100$) reviews from certified Rotten Tomatoes critics, one after another. The i -th review will either be positive (if $R_i = \text{P}$) or negative (if $R_i = \text{N}$).

At any given point in time after its first review, each movie on Rotten Tomatoes is considered to have a certain Tomatometer score. This score is a real number, computed as the number of positive reviews received so far divided by the total number of reviews received so far.

You're concerned that *The Codefather*'s final Tomatometer score may end up not being too high, as general audiences may not grasp its subtle competitive programming-driven writing. However, if you keep refreshing its Rotten Tomatoes page as new reviews come in, maybe you can catch a point in time at which it has a higher score, and take a screenshot of it to show to your friends! Determine the maximum Tomatometer score which *The Codefather* will reach at any point after its first review.

Your answer must have at most 10^{-5} absolute or relative error compared to the judge's answer to be considered correct.



Input Specification

The first line of input consists of a single integer, N .

N lines follow, the i -th of which consists of a single character, R_i , for $i = 1 \dots N$.

Output Specification

Output a single real number, the maximum Tomatometer score achieved by *The Codefather*.

Sample Input

7
N
P
N
P
P
N
P

Sample Output

0.6

Sample Explanation

After the first 5 reviews, *The Codefather* has received 3 positive reviews and 2 negative ones, resulting in a Tomatometer score of $3/5 = 0.6$. This is the largest score that it achieves at any point in time.