

Back to SSC Maths

Author: Rezwan Arefin
Input file: standard input
Output file: standard output
Time limit: 1 second
Memory limit: 64 megabytes

We all know that any real number with finite digits can be represented as a fraction. Also there are repeating decimals, that is, decimal representation of a number whose digits are periodic (repeating its values at regular intervals) and the infinitely repeated portion is not zero. The infinitely repeated digit sequence is called the repetend or reptend.

For example, $0.333\dots = 0.\overline{3}$ is a repeating decimal (the repetend has a line over it). It can be shown that any repeating decimal with finite digits can be represented as a fraction. Like $0.\overline{3} = \frac{1}{3}$

Now your task is simple, given an real number with possibly some repetend. Find it's fraction representation (irreducible of course).

Input

The first and only line contains a non-negative real number with the repetend in parentheses. For example, 0.33 will be given as 0.33 and $5.23\overline{144}$ will be given as 5.23(144). It is guaranteed that the parenthesis always appears after the decimal point, and the repetend is never 0. And also there will be atmost one occurance of the decimal point, or the parenthesis.

Output

Print one any only line containing 'a/b' (qithout quotes) where $\frac{a}{b}$ is the given real number expressed in irreducible fraction.

Constraints

The real number will contain atmost 6 digits (without the decimal point and the parenthesis).

Scoring

Subtask 1 (points: 40)

The real number in input won't have any repetend.

Subtask 2 (points: 60)

No further restrictions.

Example

Sample Input	Sample Output
0.3	3/10
0.0123	123/10000
0.(3)	1/3
5.8(54)	322/55

Explanation

$$\frac{3}{10} = 0.3, \frac{123}{10000} = 0.0123, \frac{1}{3} = 0.\overline{3}, \frac{322}{55} = 5.8\overline{54}$$

Note that sample 3 and 4 won't appear in subtask 1.