Coding Challenge 4.0

Problem: R wela 1/R.

Statement

Kratos, the God of War, has been tasked with a circuit analysis challenge. His goal is to determine the equivalent resistance value of a circuit composed of resistors connected in series and parallel. The circuit is represented as a string of resistor values, and the following notations are used:

`[]`: Indicates that all the available resistors are connected in parallel.
`()`: Indicates that all the available resistors are connected in series.

The equivalent resistance value for resistors connected in series:
is calculated as follows: Req = R1 + R2 + ... + Rn.
The equivalent resistance value for resistors connected in parallel:
is calculated as follows: 1/Req = 1/R1 + 1/R2 + ... + 1/Rn.

Note that all resistance values are positive and expressed in ohms and fixed with two digits after the `,` in float cases.

Kratos must use his expertise in circuit analysis to compute the equivalent resistance value of the circuit. Will he succeed and emerge victorious once again?

Examples :

Input	Output
(10, [20, 30])	22.00
((5, [10, 2]), ([20, 30], 10, [20, 40]))	42.00
(10, 5, 16, [(16, 14), [(15, 10), 5]])	34.66
(5, 8, 9, [10, 24])	29.06