

Peter is taking his very first algebra class today. At the end of the lesson, the teacher posts a homework on the blackboard, and for each given `problem` he provides the `answer` so that students could check their results at home.

Harry, Peter's classmate who hates math, sabotaged the class. The second the teacher left the room, he scribbled over one number of the homework, making it illegible. As a person who loves math and hopes to become a great programmer one day, Peter still wrote down the homework, and replaced the illegible number with the '?' symbol.

Prior to completing the task, Peter needs to find out what symbol was scribbled over. Given the `problem` and its `answer`, your task is to help Peter and find the number hidden under the '?' symbol.

### Example:

- For `problem = "5*x = ?"` and `answer = "x = 2"`, the output should be

```
algebraHomework(problem, answer) = 10.
```

Harry scribbled over some number in the problem, so in order to find it you should replace `x` with its value 2 and solve the equation with '?' as unknown.

- For `problem = "((5 * x) / 4) + 13) - 15 = 23"` and `answer = "x = ?"`,

the output should be

```
algebraHomework(problem, answer) = 20.
```

Harry scribbled over the answer, so all you have to do is solve the `problem`.

### Input/Output

- [time limit] 4000ms (py3)**
- [input] string problem**

The `problem` is guaranteed to have the following format:

$((...(a \times b) \times c) \dots) \times y = z$ , where  $\times$  is some operator ('+', '-', '\*' or '/') and each letter can be:

- o a number;
- o a variable;
- o the '?' sign.

The `problem` can contain arbitrary number of whitespace characters, both leading and trailing. It is guaranteed that:

- o there is only one variable, and it is the same as in the `answer`;
- o the variable is always to the left of the '=' sign;
- o there is no '?' in the `problem` if it's present in the `answer`;
- o there is at most one '?' symbol, and it substitutes a number;
- o all numbers are integers;
- o the solution is also an integer.

- [input] string answer**

The answer in the format `<var> = <num>`, where `<var>` is guaranteed to be a lowercase English letter and `<num>` is guaranteed to be either an integer or a `'?'` character.

Note that the `answer` can contain an arbitrary number of whitespace characters.

- **[output] integer**

The number that is hidden behind the `'?'` character.