F008B. Addition of fractions P93090_en

Your task is to write a program that computes the result of adding a sequence of fractions.

Using the definition

```
struct Fraction {
    int num, den;    // always strictly positive
};
```

your program must include and use the function

```
Fraction addition(const Fraction& x, const Fraction& y);
```

that returns the addition of |x| and |y|, *without common factors in the numerator and denominator*.

Input

The input is a sequence of one or more simplified fractions separated by plus signs, ended with an equal sign. Each fraction consists of its numerator, a bar, and its denominator. Numerators and denominators are natural strictly positive.

Output

Your program must print the simplified fraction corresponding to the sum of all the given fractions.

Observations

- In order to avoid overflows, use the function |addition()| to accumulate the partial calculations.
- Inefficient calculation of the greatest common divisor will be negatively valued.
- Using vectors is not allowed to solve this problem.

Sample input 1

```
1/2 + 1/2 =
```

Sample output 1

```
1/1
```

Sample input 2

```
1/2 + 2/3 + 3/4 + 4/5 + 5/6 =
```

Sample output 2

```
71/20
```

Sample input 3

```
1/10125 + 1/8000 + 1000/999 =
```

Sample output 3

```
4801073/4795200
```

Sample input 4

```
9/4 =
```

Sample output 4

```
9/4
```

Problem information

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