The Virtual Learning Environment for Computer Programming

Read a rational number (2)

P93157_en

Write a procedure

```
bool read_rational (int& num, int& den);
```

that tries to read a rational number given in the form "numerator"/"denominator", and stores these two values in *num* and *den*, respectively. Additionally, you must remove all common factors from *num* and *den*. Furthermore, if the input had a rational number, you must return true; otherwise you must return false. For instance, this code

```
int num, den;
while ( read_rational (num, den)) cout << num << ' ' << den << endl;
with this input

66/12
100/100
should print

11 2
1 1</pre>
```

Precondition

```
1 \le num \le 10^9 \text{ and } 1 \le den \le 10^9
```

Observation

You only need to submit the required procedure; your main program will be ignored.

Problem information

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