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The Virtual Learning Environment for Computer Programming

## Rational numbers (2)

P84584\_en

Using the same definition of the rational numbers as in problem P85696, write a function with two output parameters:

```
void read_rational (Rational&r, bool& end);
```

that tries to read a rational number represented by two integer numbers (the numerator and the denominator), returns the corresponding "normalized" rational according to the same convention that in the exercise, and prints if the two integer have been read. end must be **true** if and only if have not been read (because the input has finished). The value of r is irrelevant when end is true.

### Precondition

None of the read denominators will be 0.

Write also a procedure

```
void print_rational (const Rational& r);
```

that prints the rational r with the format r.num/r.den, unless the denominator is 1, case in which print only the numerator. Do not print any intermediate space nor any jump line at the end.

#### Precondition

The rational r is correct and it is already normalized.

#### Observation

You only need to submit the required classes; your main program will be ignored. Strictly obey the type definitions of the statement.

### **Problem information**

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Generation: 2024-05-03 00:41:25

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