
Reverse Polish notation

P52023_en

Evaluate arithmetic expressions given in the so-called reverse Polish notation. For instance, the expression

$$3 + 154$$

in reverse Polish notation is given as

$$3 \ 154 \ +$$

That is, the two operands are given first, and afterwards comes the corresponding operator. A more complicated expression like

$$((3 + 4) * (2 - 8)) + (2 + 5)$$

is given as

$$3 \ 4 \ + \ 2 \ 8 \ - \ * \ 2 \ 5 \ + \ +$$

Input

Input consists of several arithmetic expressions in reverse Polish notation, one per line. The operands are natural numbers. The possible operators, all binary, are +, - and *.

Output

For every expression, print the result of its evaluation.

Sample input 1

```
3 154 +
3 4 + 2 8 - * 2 5 + +
99
```

Sample output 1

```
157
-35
99
```

Problem information

Author: Salvador Roura

Translator: Carlos Molina

Generation: 2026-02-06T11:01:07.649Z

© Jutge.org, 2006–2026.

<https://jutge.org>