Reverse Polish Notation

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- Reverse Polish Notation (RPN):
  - Other way to write calculations
  - **Parenthesis-free**
  - `stack`-based implementation

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  - Other way to write calculations
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- Example:
  - Classical Notation
  - RPN

```
(13 + 3) / 4
```

```
13 3 + 4 /
```

Reverse Polish Notation

- Evaluation

- **Read next symbol**
  - Case **number**: Put it to stack
  - Case **operator**:
    1. Remove two numbers from stack
    2. Treat these as operands
    3. Put result back to stack
- **Repeat** (until done)

For simplicity: all operators here have *two* operands

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RPN

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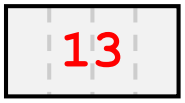
RPN



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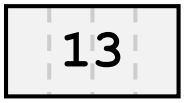

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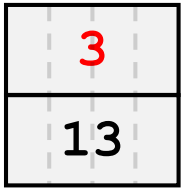

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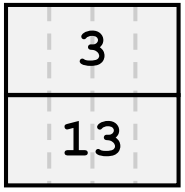

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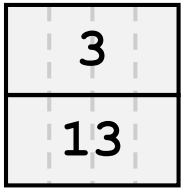

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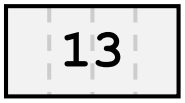

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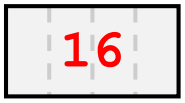

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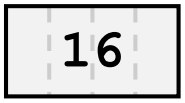

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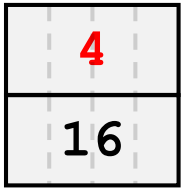
RPN



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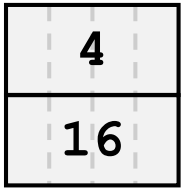

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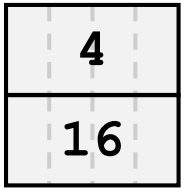

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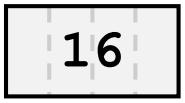

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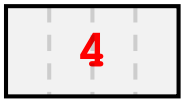

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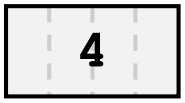

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