

## In a good algorithm...

<i>Property</i>	<i>Why?</i>
All required actions are included in the algorithm.	the performer never takes the initiative and only does what they are told.
Actions are arranged in the correct order.	
Actions shall be understood unambiguously.	
	Performer only carries out the actions in a designated sequence.
	Performer has neither intuitiveness, nor imagination.



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**Programming language is**  
**a language to communicate with**  
**machines.**

**It includes a set of commands.**  
**Each command has a single**  
**meaning.**



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# How to write a computer-understandable program?

You need to follow the **rules** for the use of signs and commands of Python.

Rule of beginning

The first command in a program shall be written in the beginning of a line.

Rule of order

Commands shall be executed in order if they are written one below the other.

Rules of code style

In Python, replacing lowercase letters with uppercase ones is not allowed. An accidental character (even a space or comma) may break the program.



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**Function is**  
**an algorithm that is composed in a**  
**programming language and has a unique**  
**name.**

**Example.**

**print()** is a complete function for printing parameters specified in its in parentheses.

<i>Function syntax</i>	<i>Program will print</i>
<code>print('Hello, world!')</code>	Hello, world!



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# Print function

As its parameters, print() may not only accept words or numbers, but also arithmetic expressions.

<i>Function syntax</i>	<i>Value</i>	<i>Output</i>
<code>print(2*7)</code>	Multiplication	14
<code>print(10+4)</code>	Sum	14
<code>print(20-6)</code>	Difference	14
<code>print(28/2)</code>	Quotient	14.0
<code>print(14%2)</code>	Remainder	0
<code>print(14//3)</code>	Quotient	4
<code>print(3**3)</code>	Raising to a power	27



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# Print() function

In Python, execution order for arithmetic operations corresponds to the mathematics laws.

Function syntax	Output
<code>print(1+1*7)</code>	8
<code>print((1+1)*7)</code>	14

*In mathematics, division, multiplication, determining quotient, and remainder are executed in the first place, Followed by addition and subtraction.*

*Parentheses can be used to alter the execution order of operations.*



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