
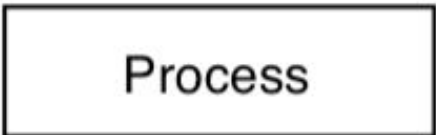
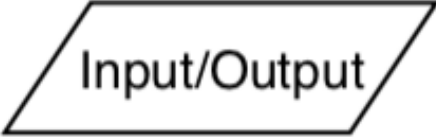

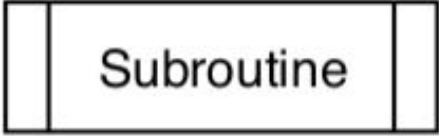



# Algorithms Cheat Sheet

## Flowchart Conventions

Name	Symbol	Usage
Start or Stop/End		Signifies the start or end of a sequence.
Process		An instruction.
Input/Output		Data received or sent by a computer.
Decision		A condition which is either true or false.
Subroutines		Calls a subroutine
Direction of Flow		Connects the symbols.

# Algorithms Cheat Sheet

## Python Syntax

Action	Python code
Assign a variable	<pre>myVariable = 42 myOtherVariable = "Hello"</pre>
Print something	<pre>print("This will be printed")</pre>
Getting input	<pre>age = input("How old are you?")</pre>
if/else	<pre>if age &gt; 17:     print("You are an adult") else:     print("You are not an adult yet")</pre>
for loop	<pre>for i in range(0,10):     print(i)</pre>
while loop	<pre>while(True):     print("hello again")</pre>

# Algorithms Cheat Sheet

## Keywords

**Algorithms**

**Abstraction**

**Subroutine**

**Decomposition**

**Selection**

**Iteration**

**Algorithms** - is a set of simple instructions that are done in a certain order to solve a problem.

**Decomposition** - is the process of breaking a complex problem into smaller component parts.

**Abstraction** - is the process of removing unnecessary detail and simplifying. Abstraction is used to remove unnecessary detail from a real-world situation and to model the simplified result in an algorithm or program.

**Selection** - in selection, a question is asked, and depending on the answer, the program takes one of two courses of action.

**Subroutine** - are a sequence of instructions that perform a specific task.

**Iteration** - an iteration is a single pass through a set of instructions. Most programs contain loops of instructions that are executed over and over again. The computer repeatedly executes the loop, iterating through the loop.