

# Algorithms

## *General:*

- A set of steps that states how a task is performed

## *Scientific:*

- A sequence of step-by-step, unambiguous instructions for solving a particular problem

# *Algorithms*

## **Deterministic –**

Given the same input, the outcome from an algorithm should always be the same.

## **Limited –**

Computers can only input, process, store and output data – so the instructions in an algorithm must be limited to these functions.

# Algorithms

*Examples:*

- Maths – algorithm to do long division or calculate the area of a triangle
- Computing – algorithm to sort through a set of numbers and find the largest one

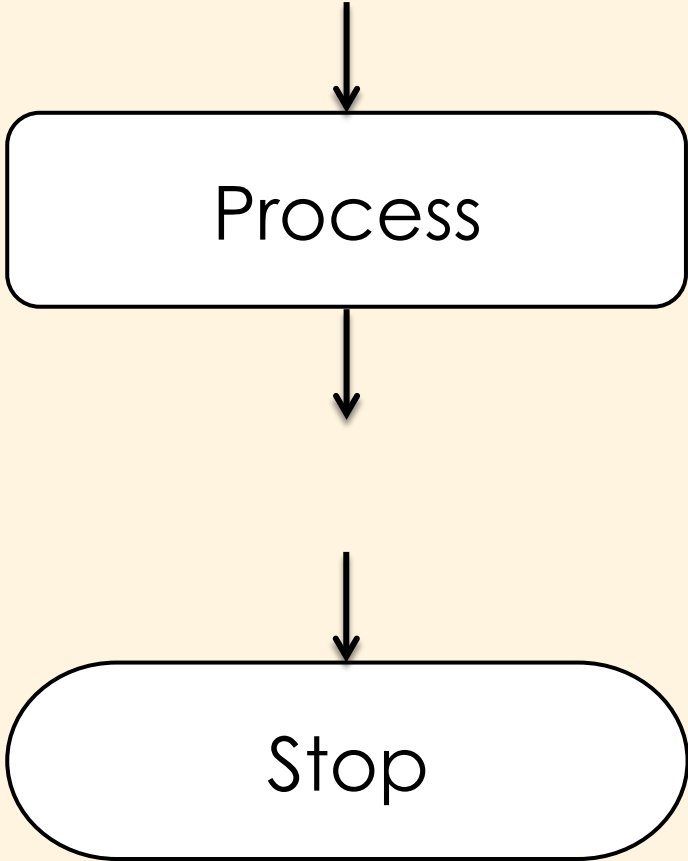
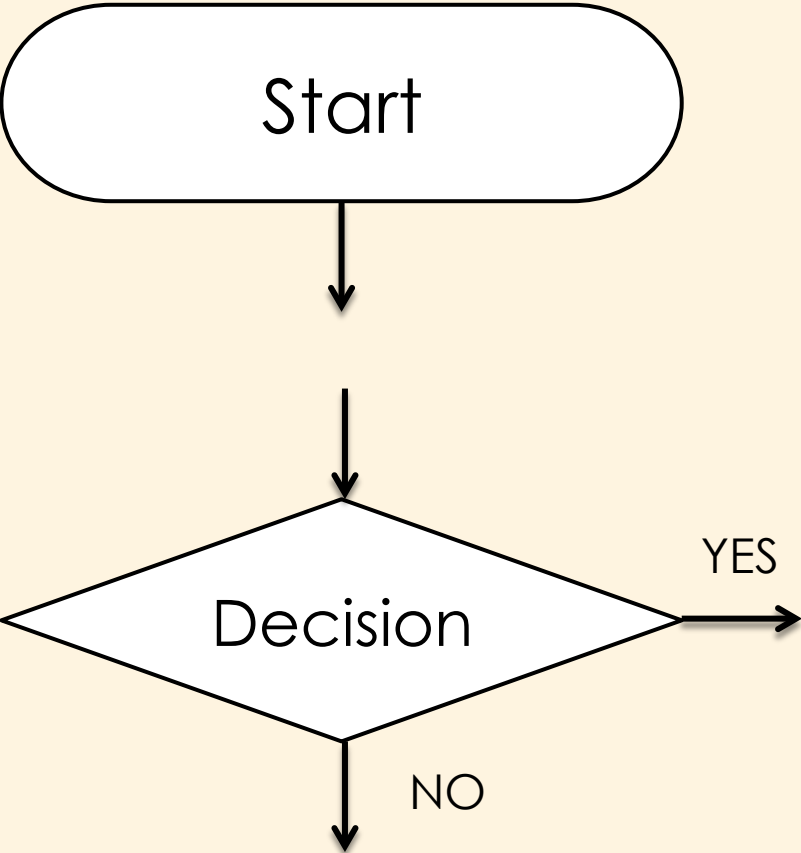
# *Algorithms*

Presented as:

- Flowcharts
- Pseudocode
- Structured English
- Written description
- Computer code

# Algorithms

Flowcharts:



# *Algorithms*

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## **Pseudocode:**

Use of a very limited set of formal instructions to write an algorithm.

Similar to “proper” computer code but more understandable by humans

# *Algorithms*

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## **Structured English:**

Use of a limited set of instructions to write an algorithm.

More similar to regular English with some programming syntax.