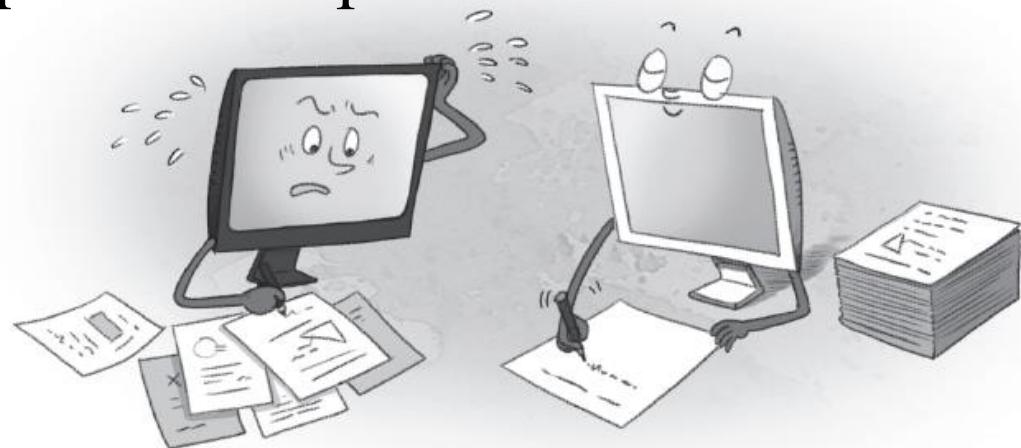


1. What is Algorithm

What is Algorithm?

- Tool to solve a well-defined computational problem.
- Computation problem
 - Can be defined by input and output.
- Algorithm is a sequence of computational steps that transforms input into output.



Example of Problem

- Problem
 - Sorting
- Input
 - A sequence of numbers (e.g., 25, 17, 52, 36, 11)
- Output
 - Permutation of input numbers in non-decreasing order
(11, 17, 25, 36, 52)

Why Study Algorithms

- Learning algorithms for specific problems
- Training algorithmic (procedural) thinking
- Leveling up abstraction
 - Intellectual abstraction
 - Important element in research and development

Algorithmic Thinking

1. Learn algorithms for specific problems.
2. By 1, train algorithmic (procedural) thinking.
3. By 1 and 2, make building blocks to solve other problems in the future.



Algorithm includes Data Structures

- Prerequisite
 - Computer Programming, Data Structures
- Data Structures
 - Like parts or modules for car manufacturing





Thank you