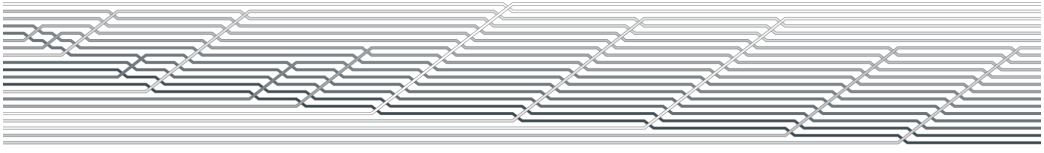
Gnome Sort



Gnome Sort is a simple sorting algorithm that is *not* known from the curriculum. The illustration above is generated from a run of Gnome Sort. The pseudocode for the algorithm is provided below.

Input: An array A with n elements
Output: A *sorted* array with the same n elements

```
1 Procedure GnomeSort(A)
2     i ← 0
3     while i < n do
4         if i > 0 and A[i − 1] > A[i] then
5             A[i − 1], A[i] ← A[i], A[i − 1] // swap A[i] and A[i − 1]
6             i ← i − 1
7         else
8             i ← i + 1
```

In this task, you should discuss the advantages and disadvantages of Gnome Sort compared to other sorting algorithms known from the curriculum. Your text should include:

- a brief explanation of how Gnome Sort works (using natural language).,
- the runtime complexity of Gnome Sort (along with a brief justification),
- a comparison of Gnome Sort with sorting algorithms from the curriculum, and
- a brief account of whether Gnome Sort is stable and/or in-place.