

UCSC Silicon Valley Extension

Advanced C Programming

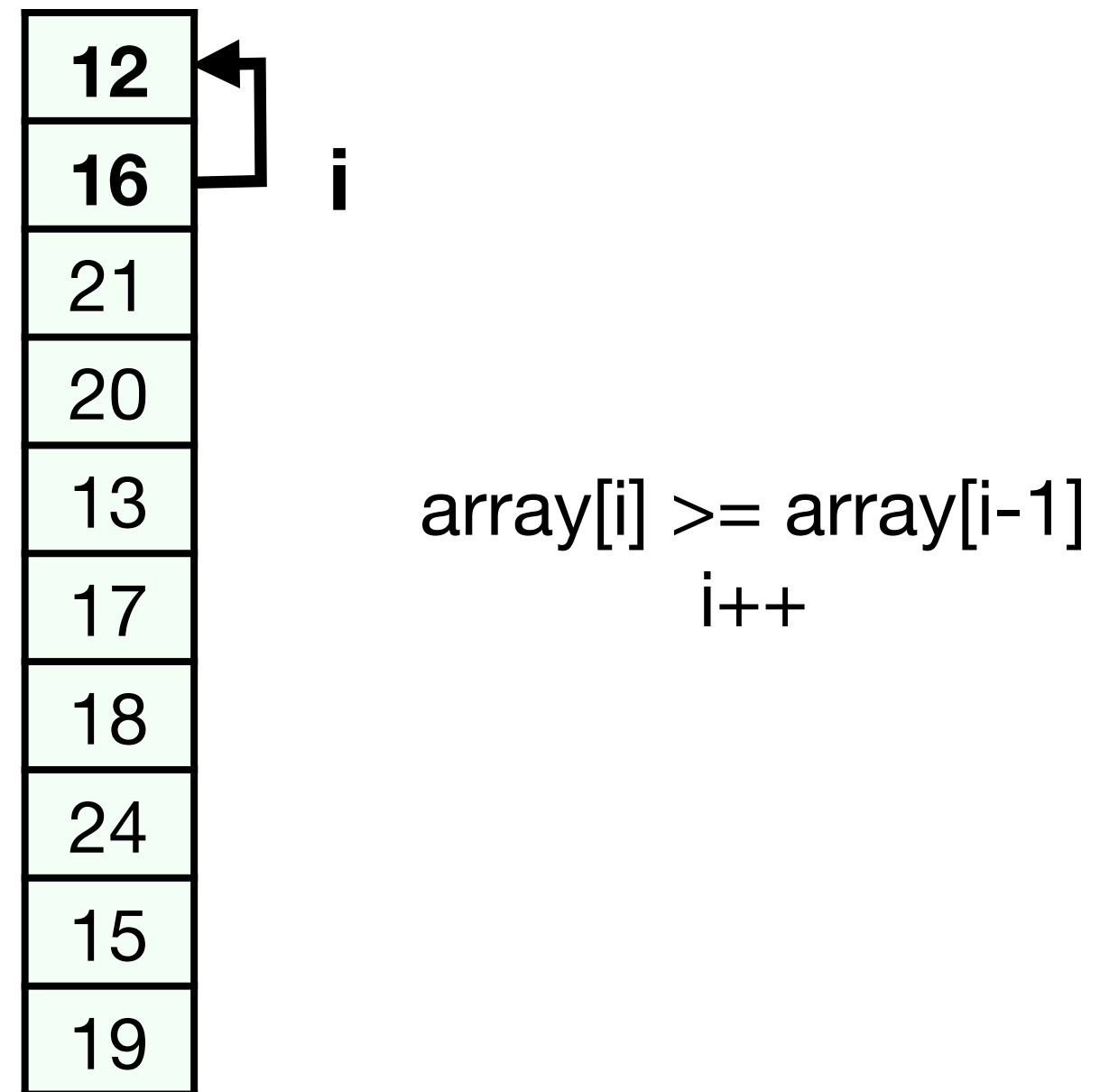
Gnome Sort

Instructor: Radhika Grover

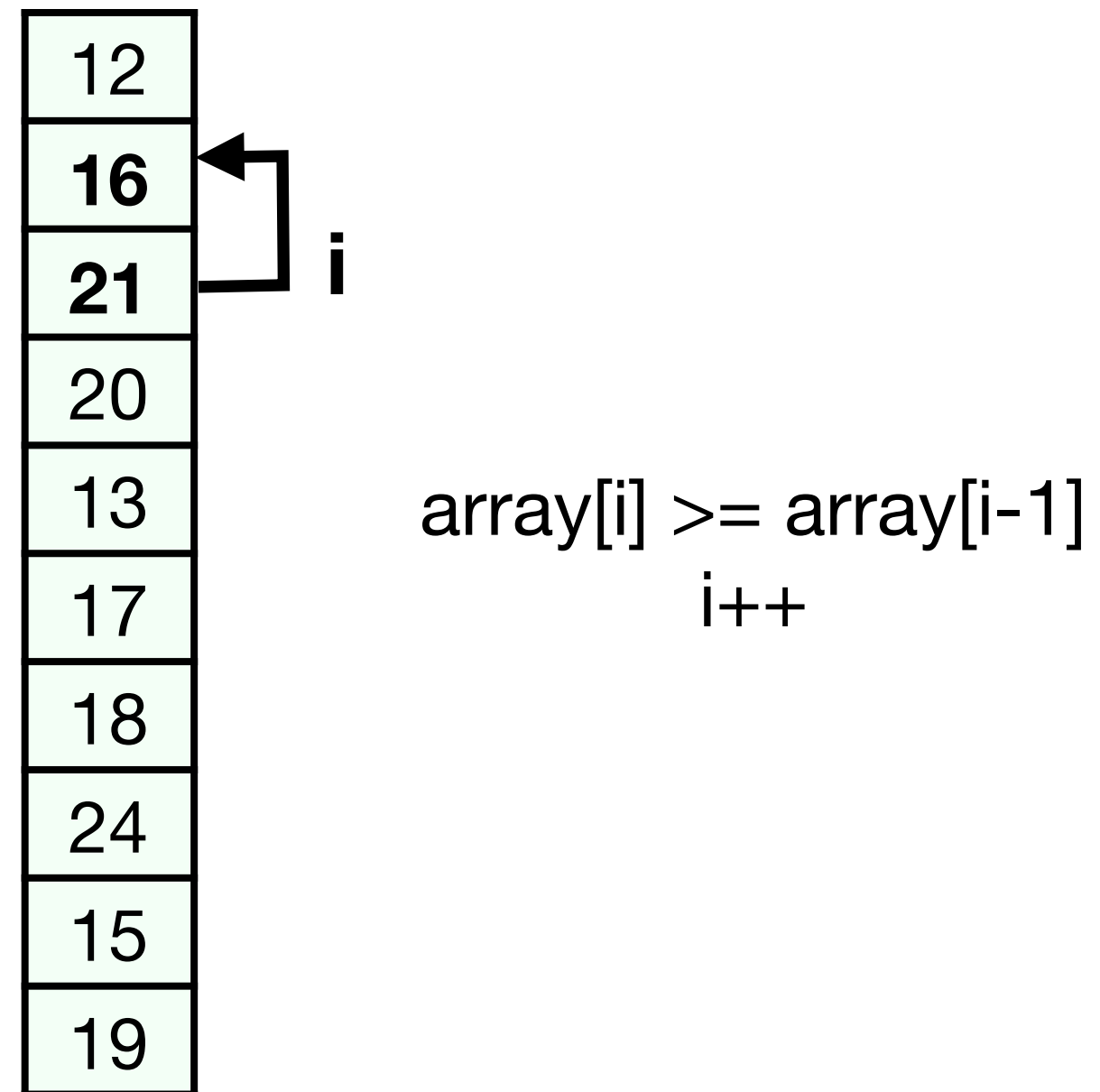
Overview

1. Compares consecutive elements starting from the top and moving down.
2. When a pair is out of order, the elements are swapped.
3. The comparison proceeds in the up direction until no more elements can be swapped.
4. Then the direction is reversed and the process continues.

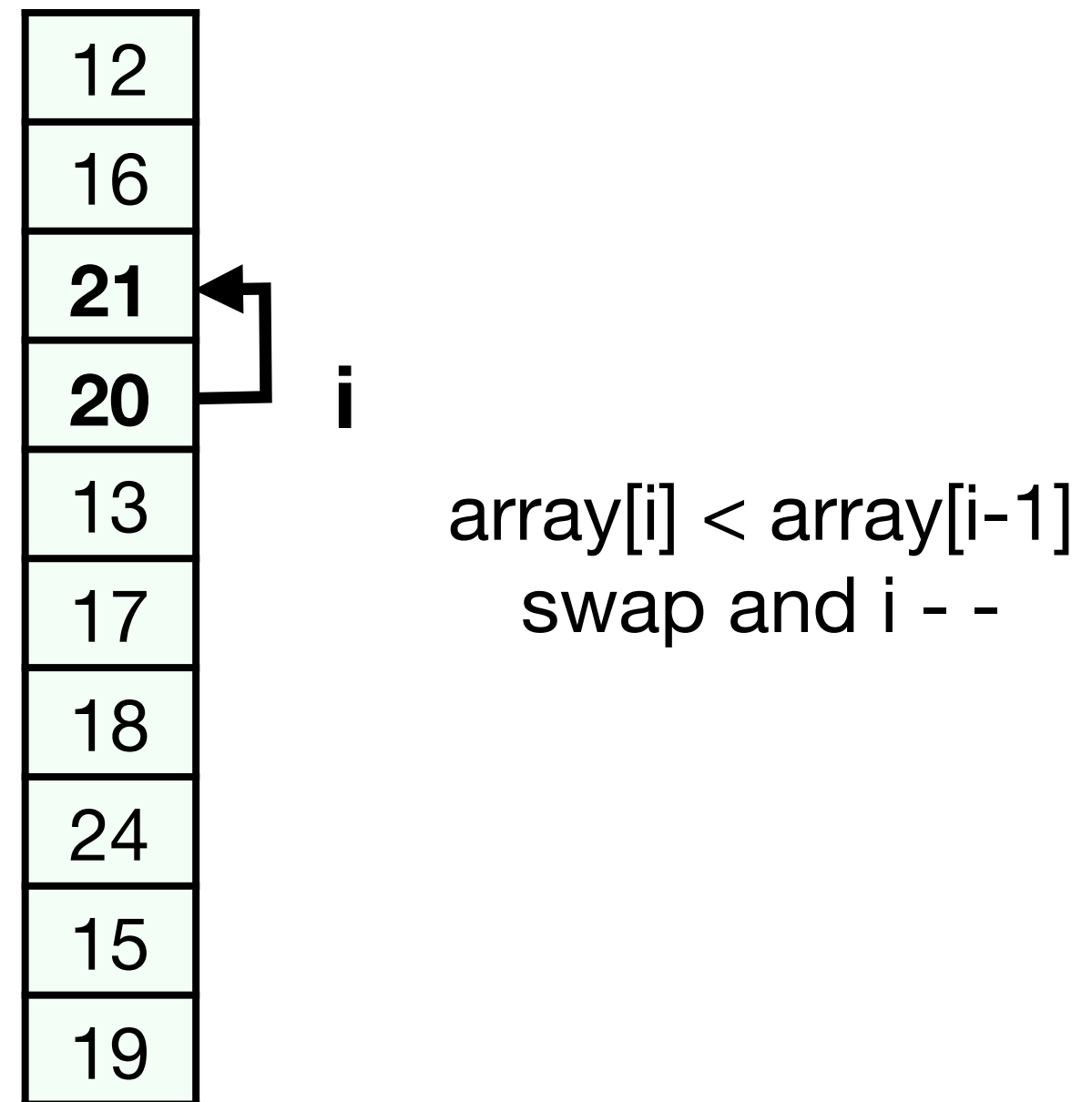
Gnome Sort



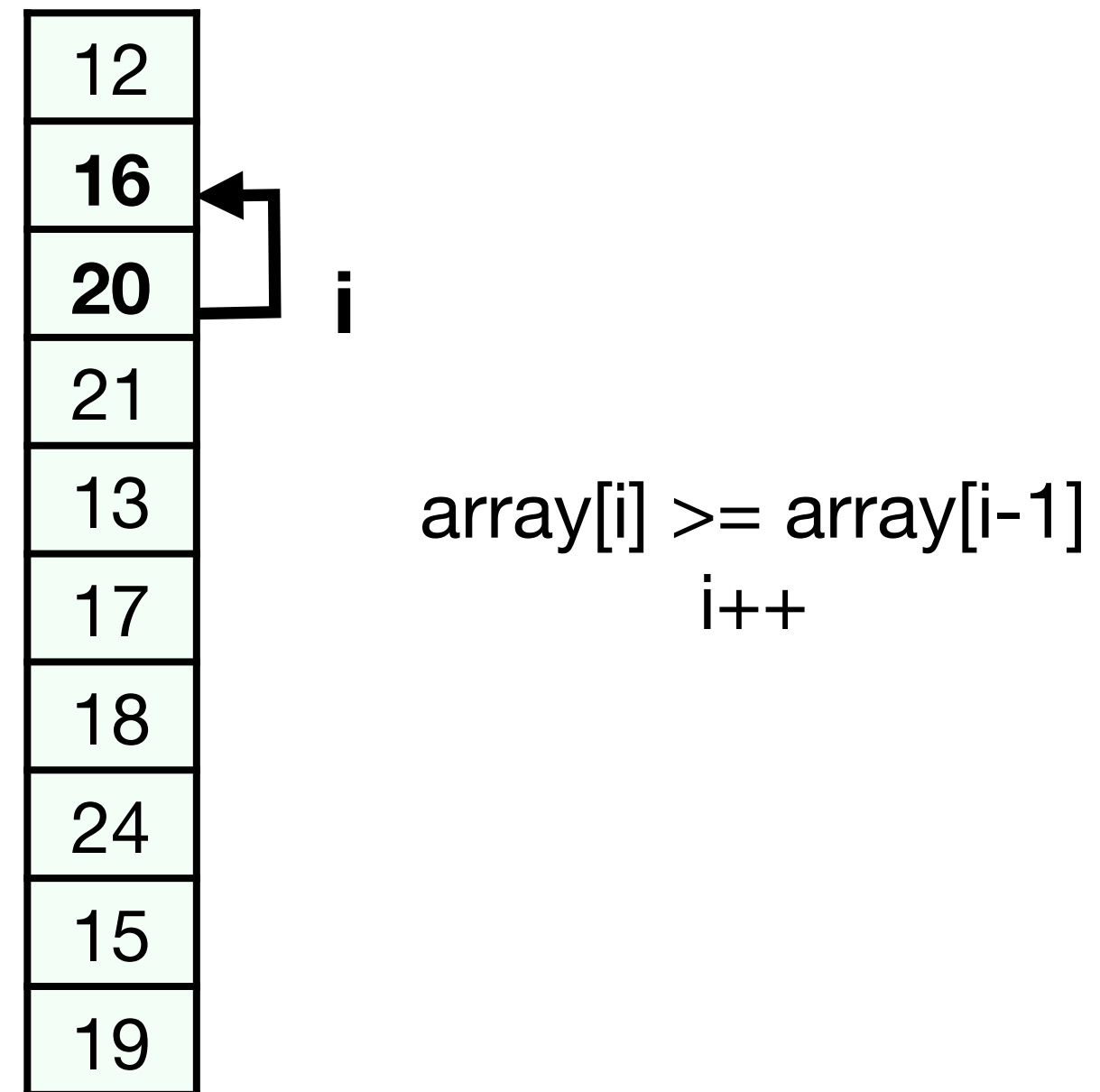
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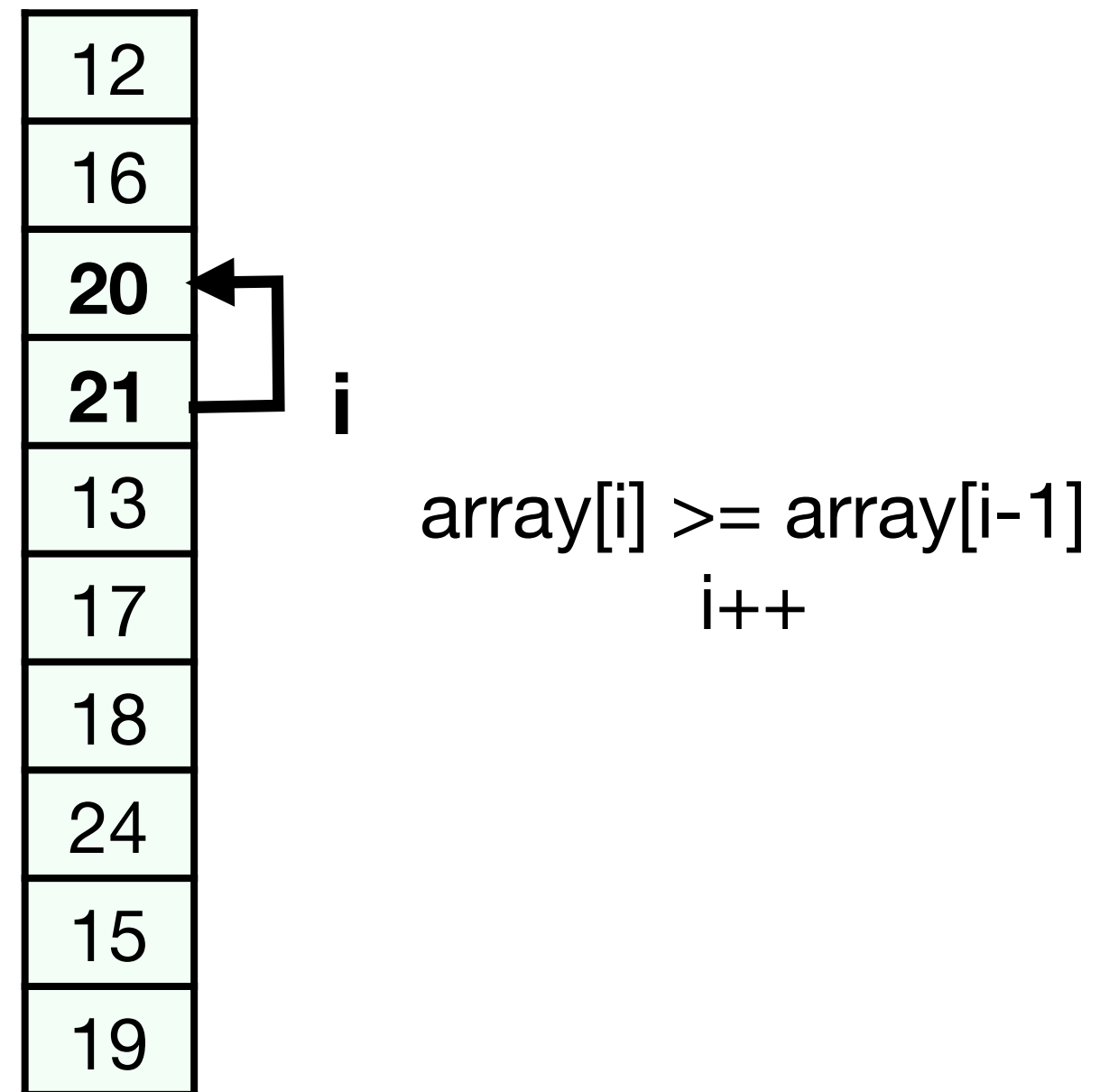
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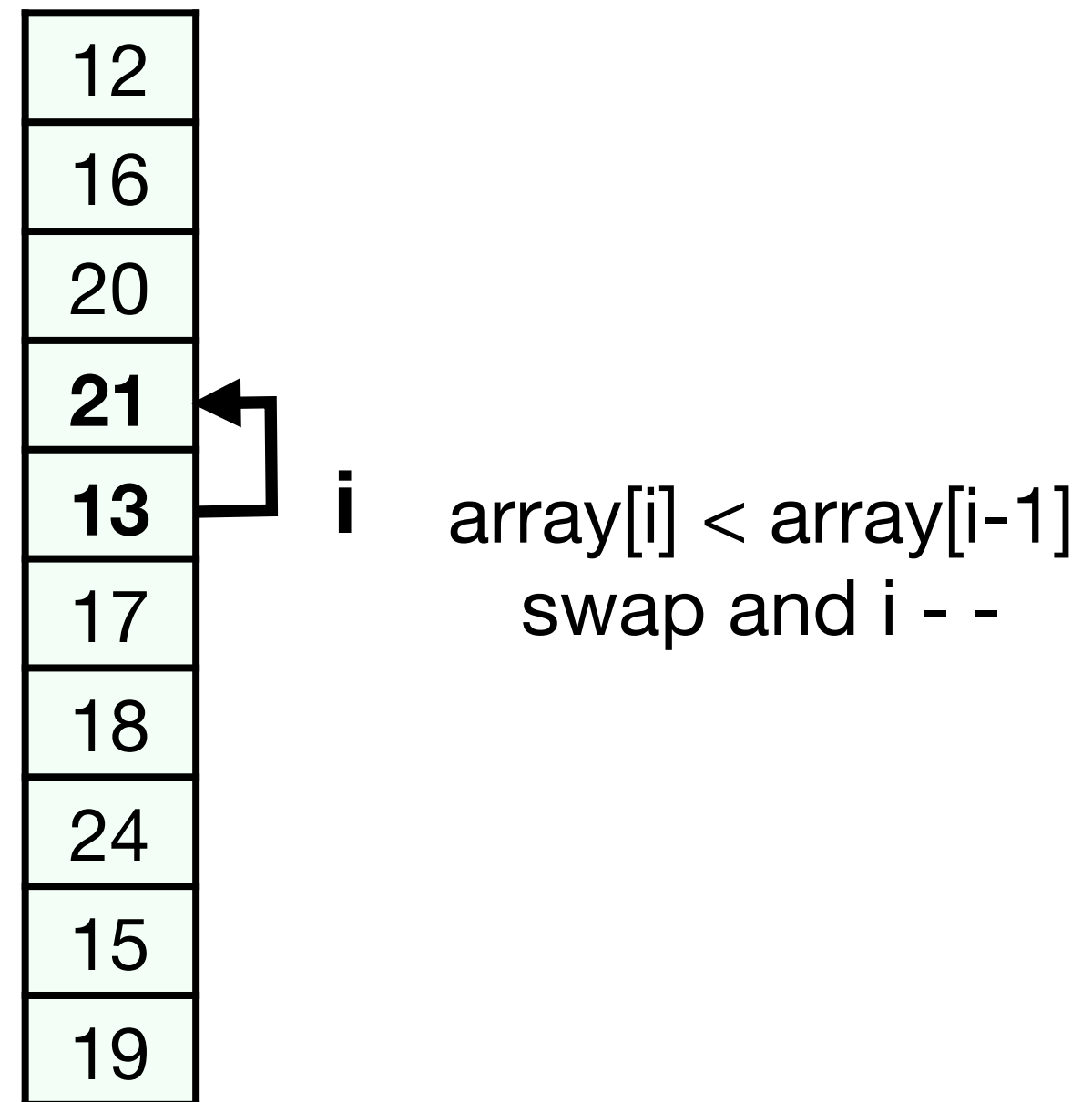
Gnome Sort



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$\text{array}[i] < \text{array}[i-1]$
swap and $i--$

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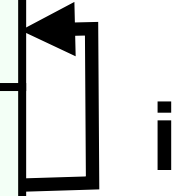
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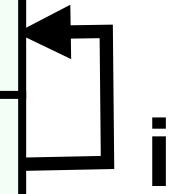
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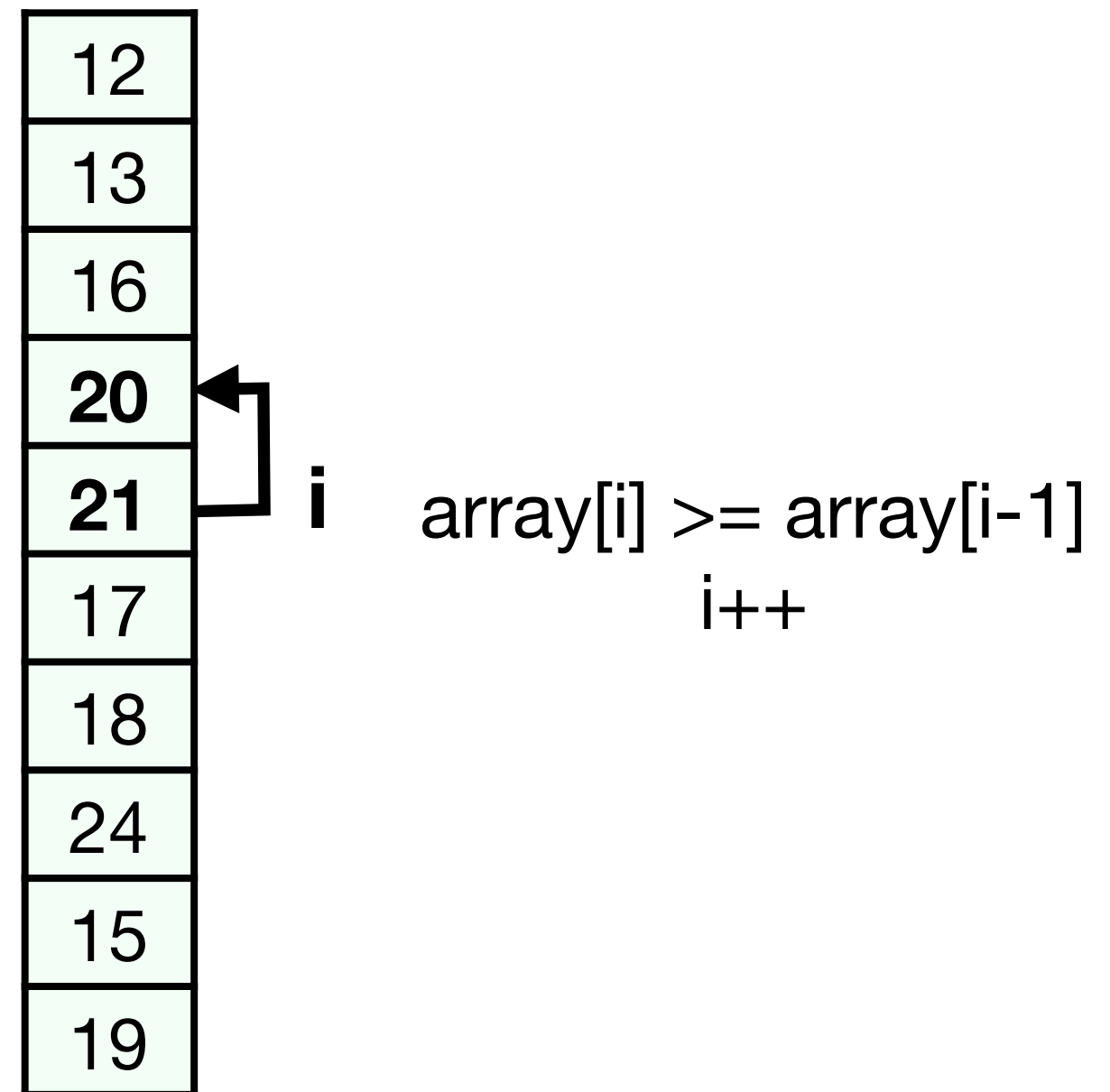
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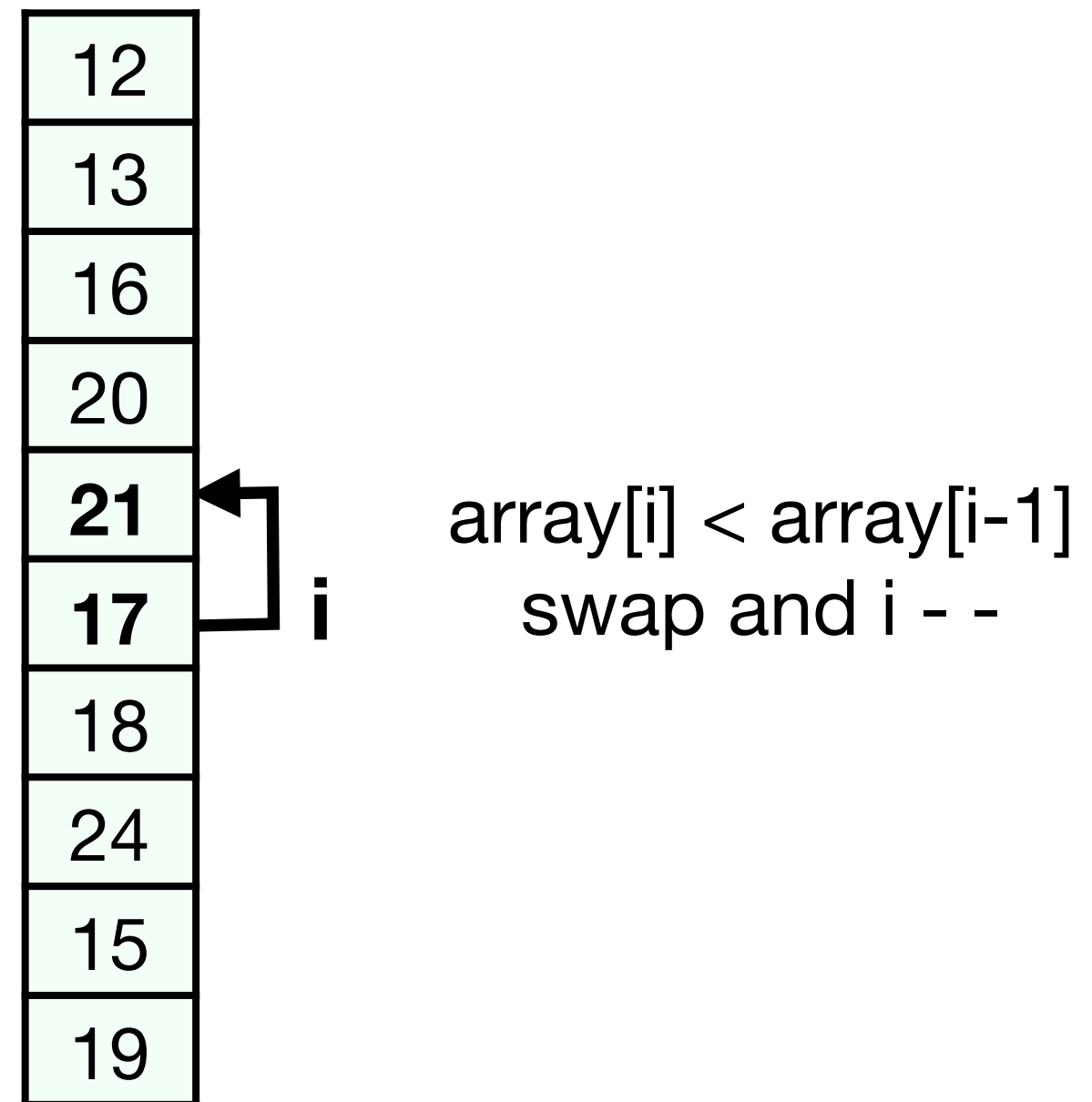


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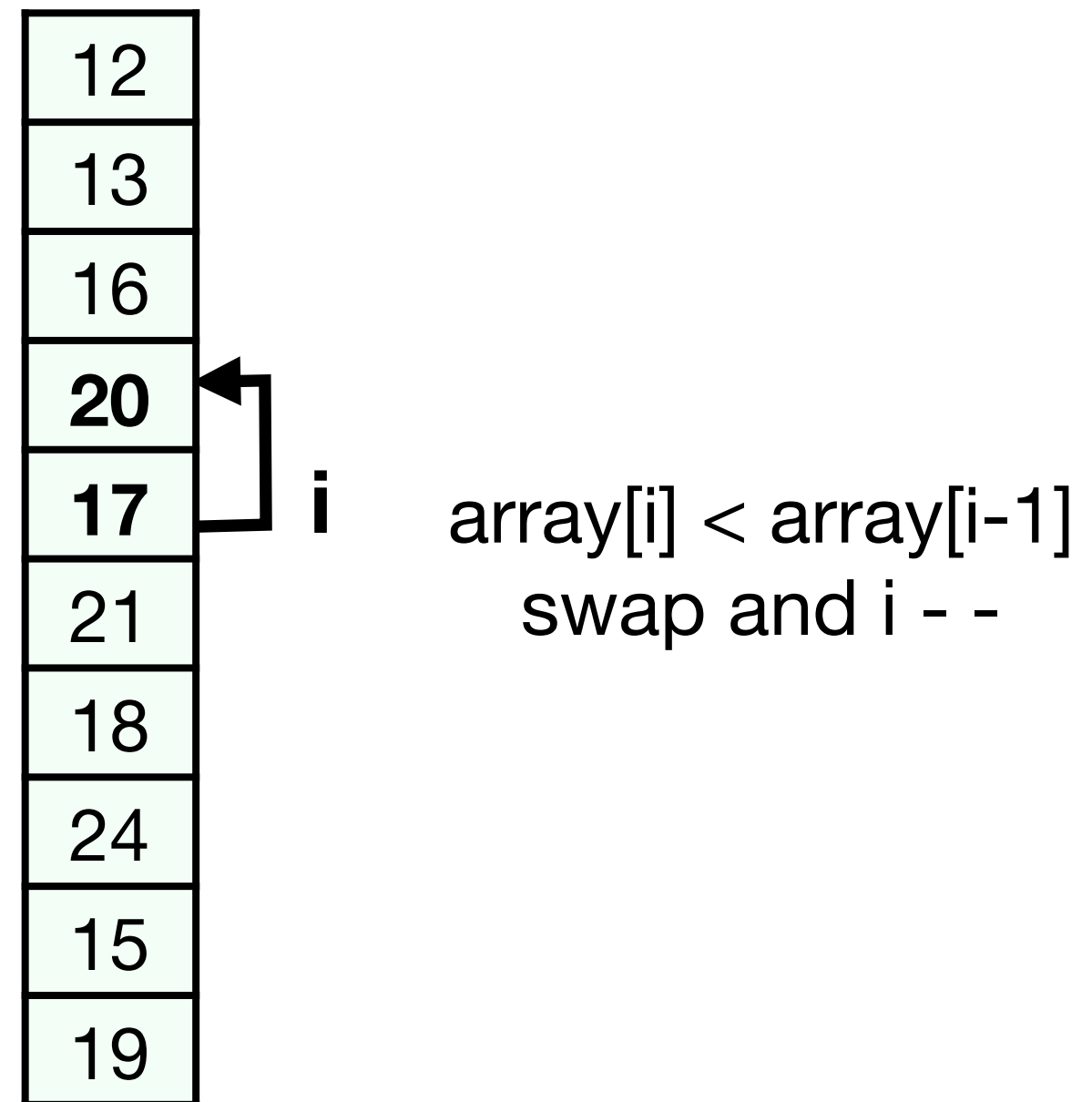
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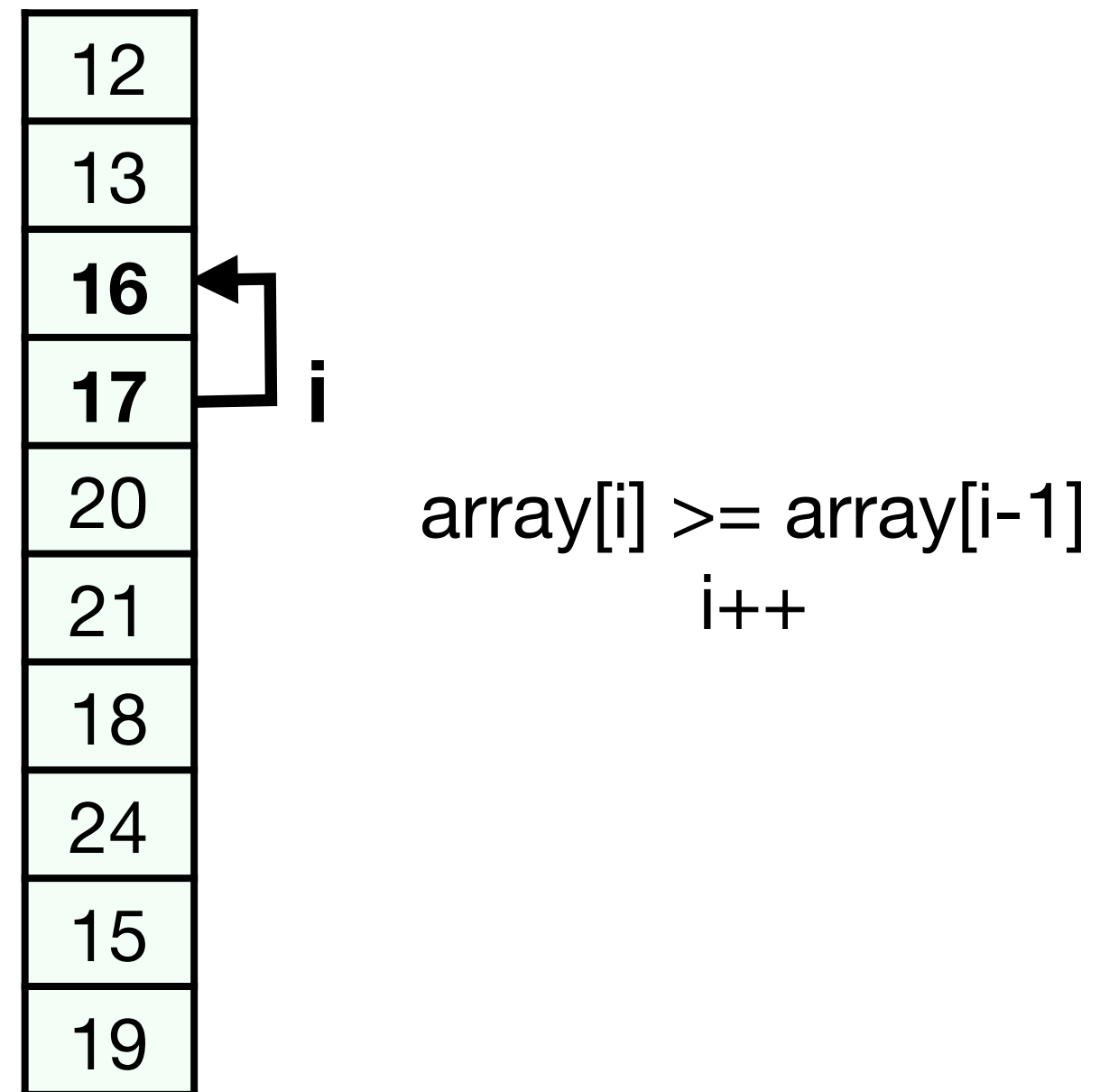
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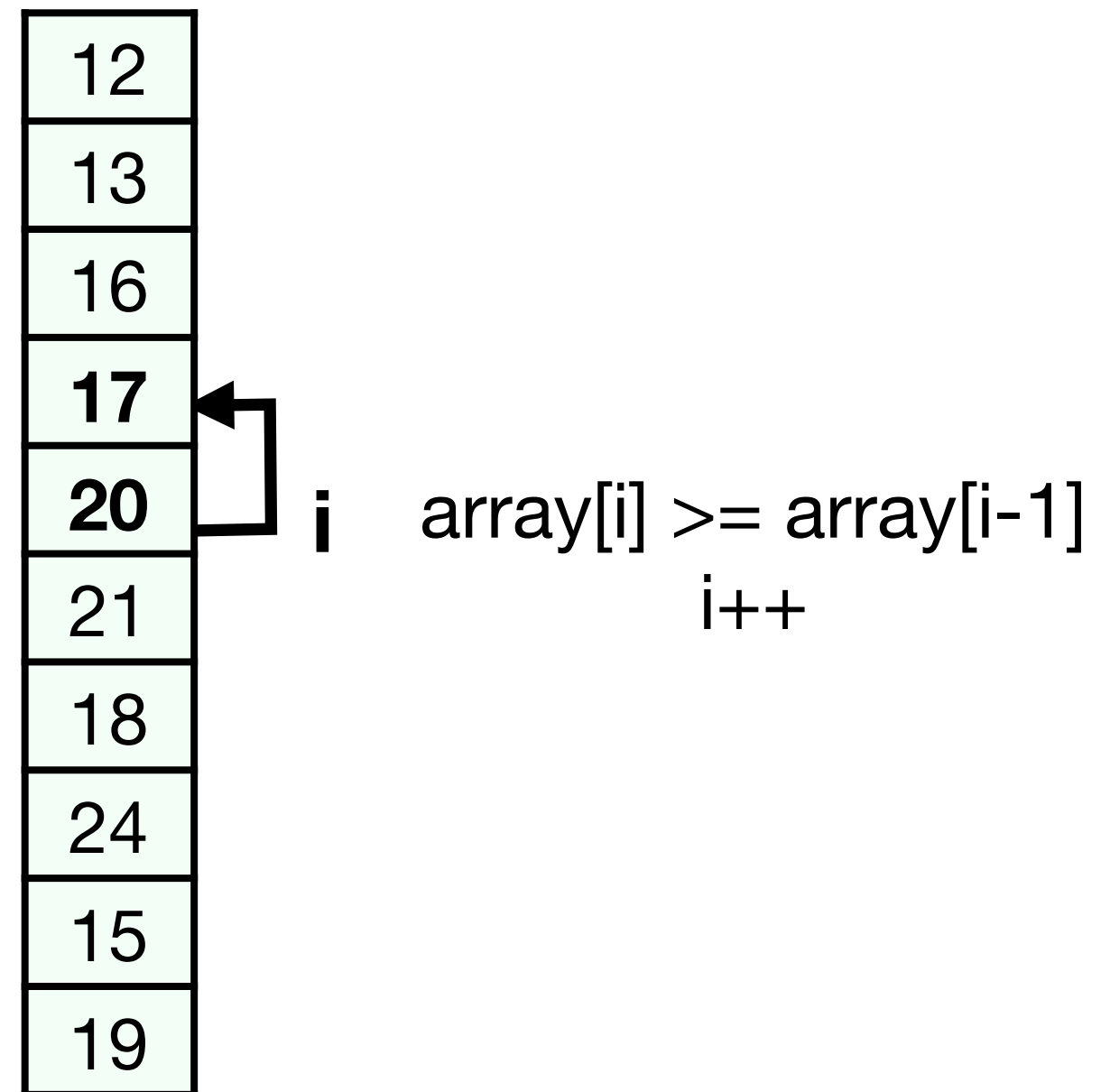
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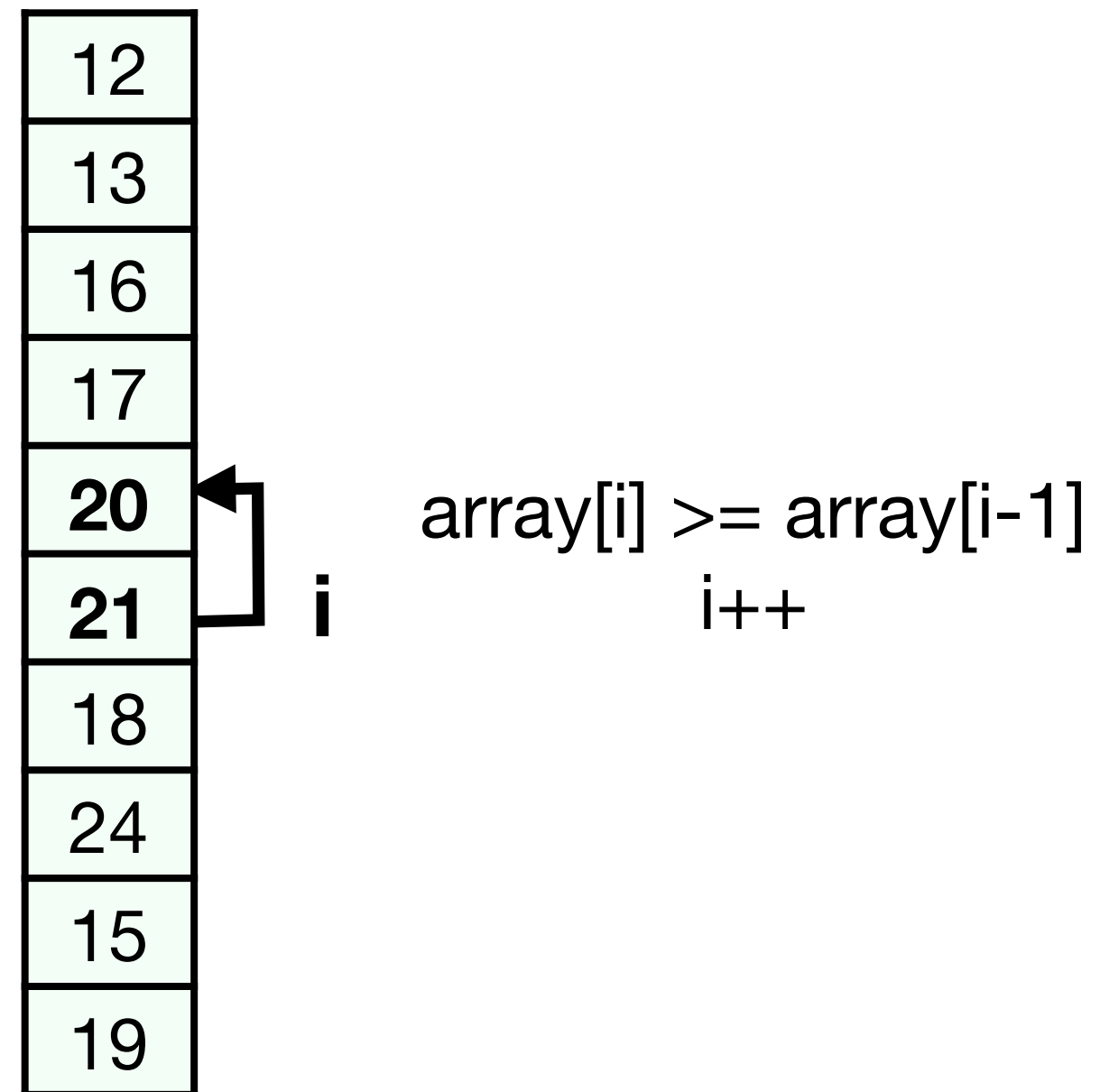
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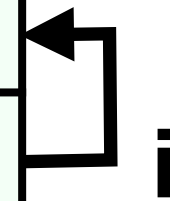
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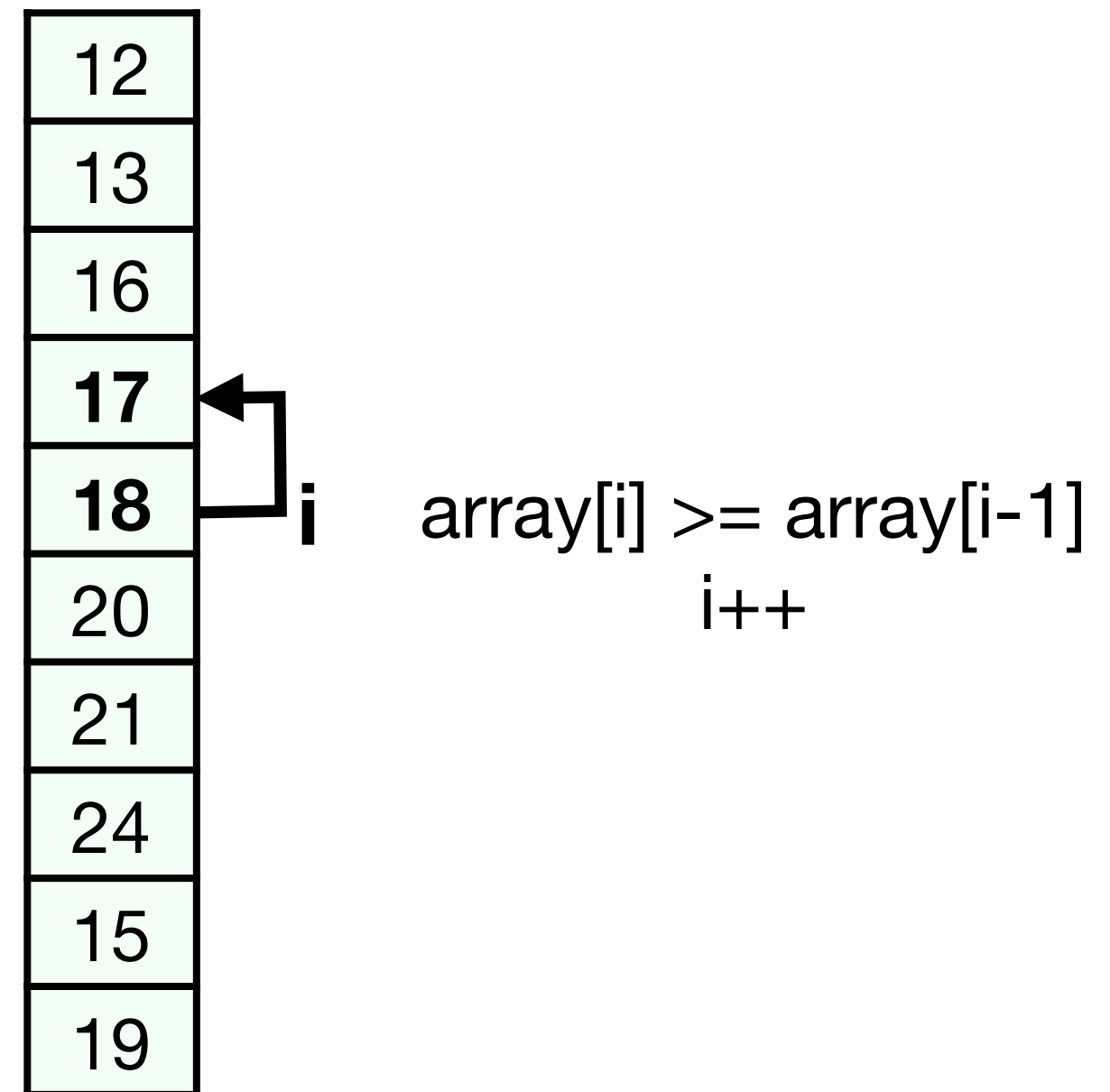
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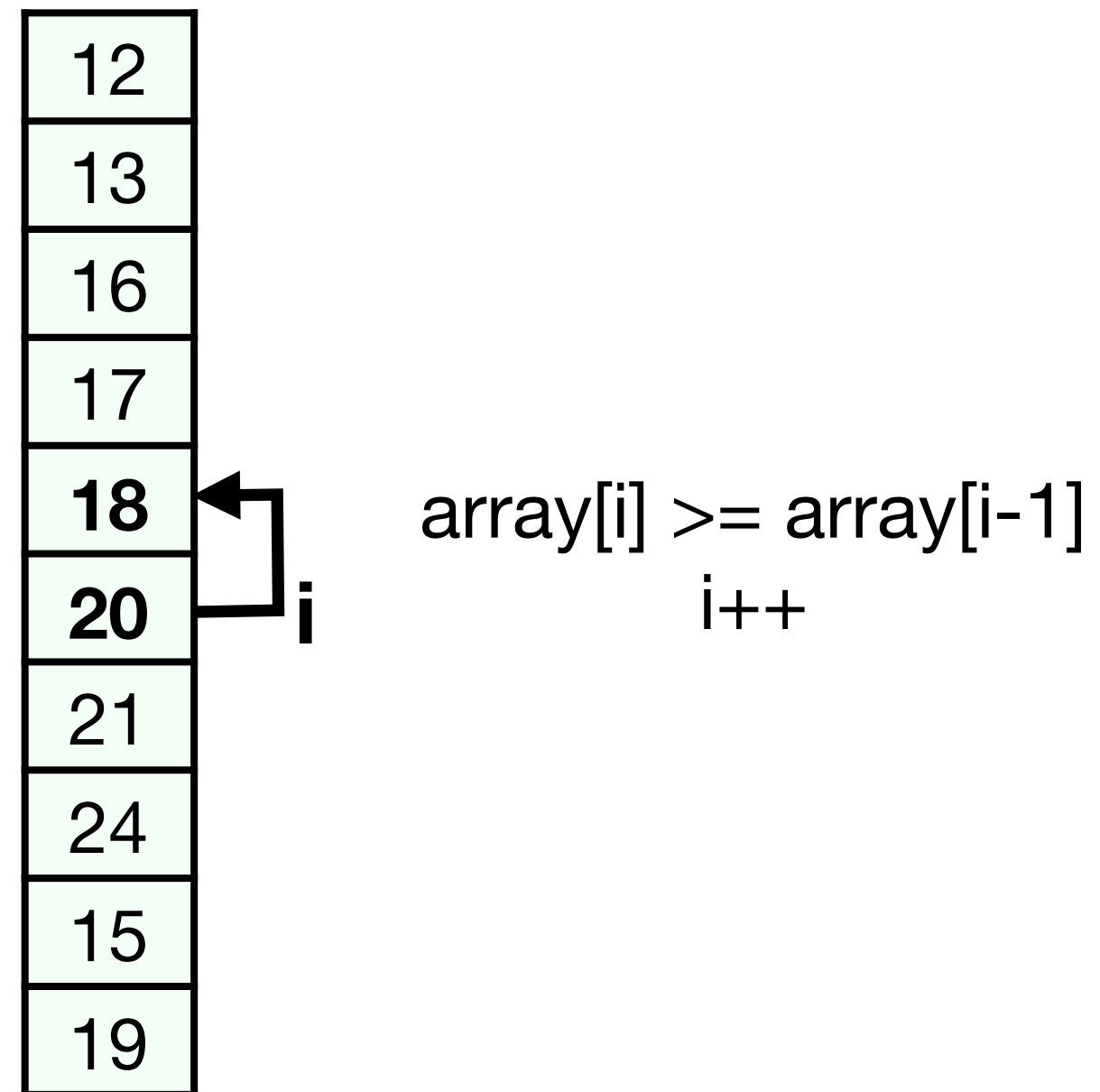
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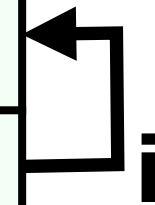
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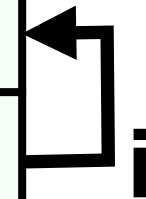
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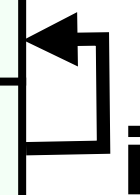
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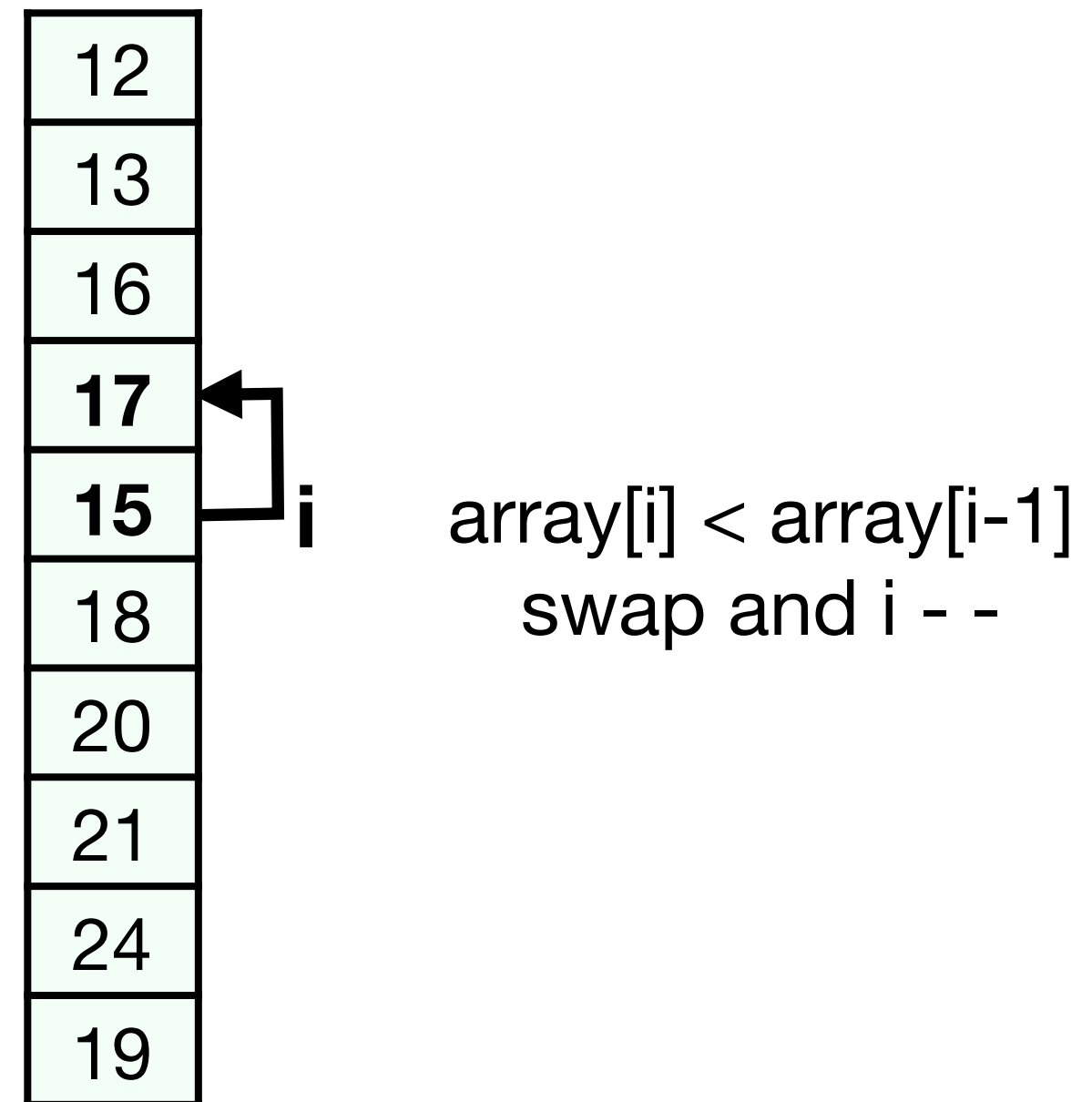
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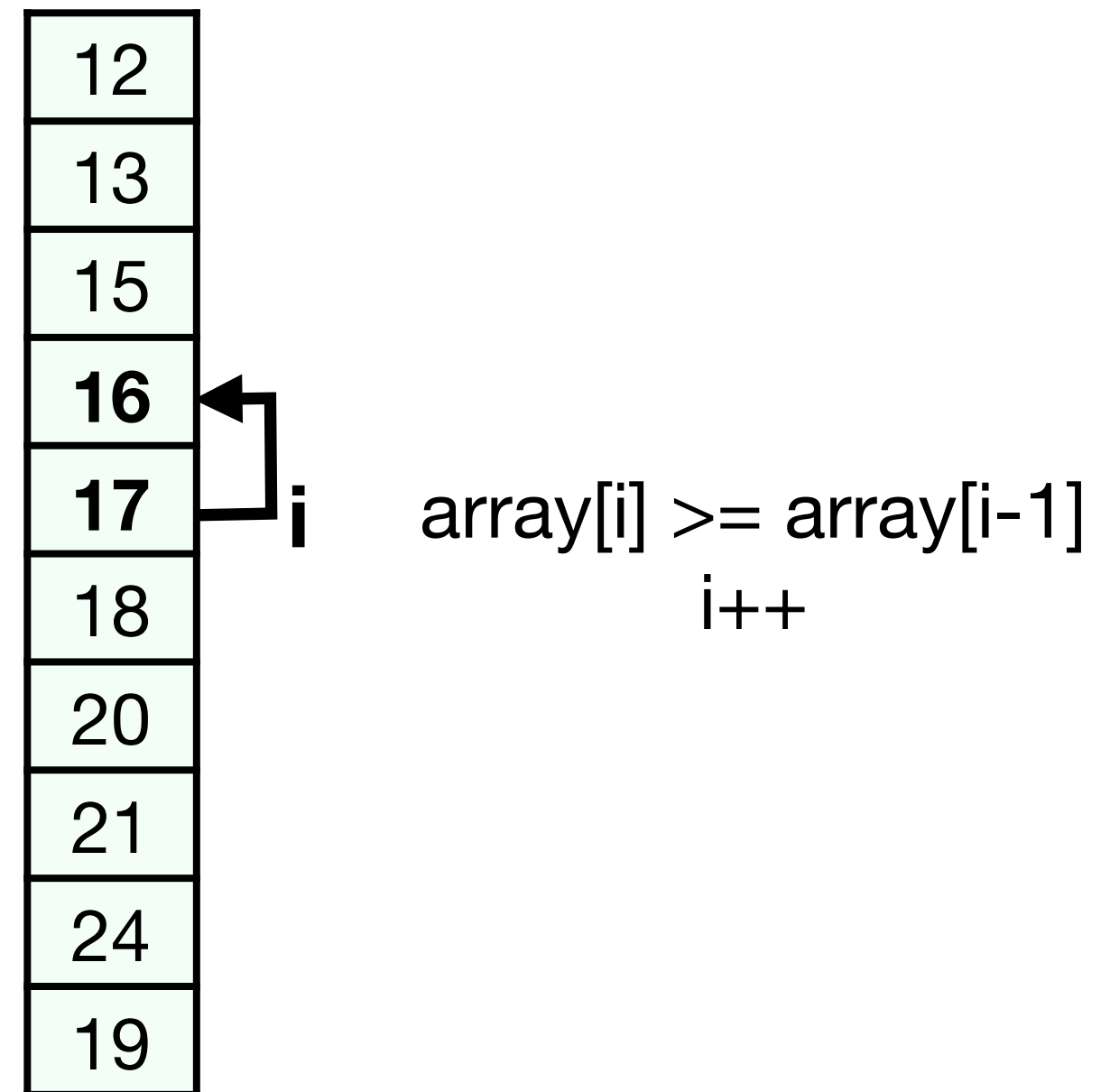
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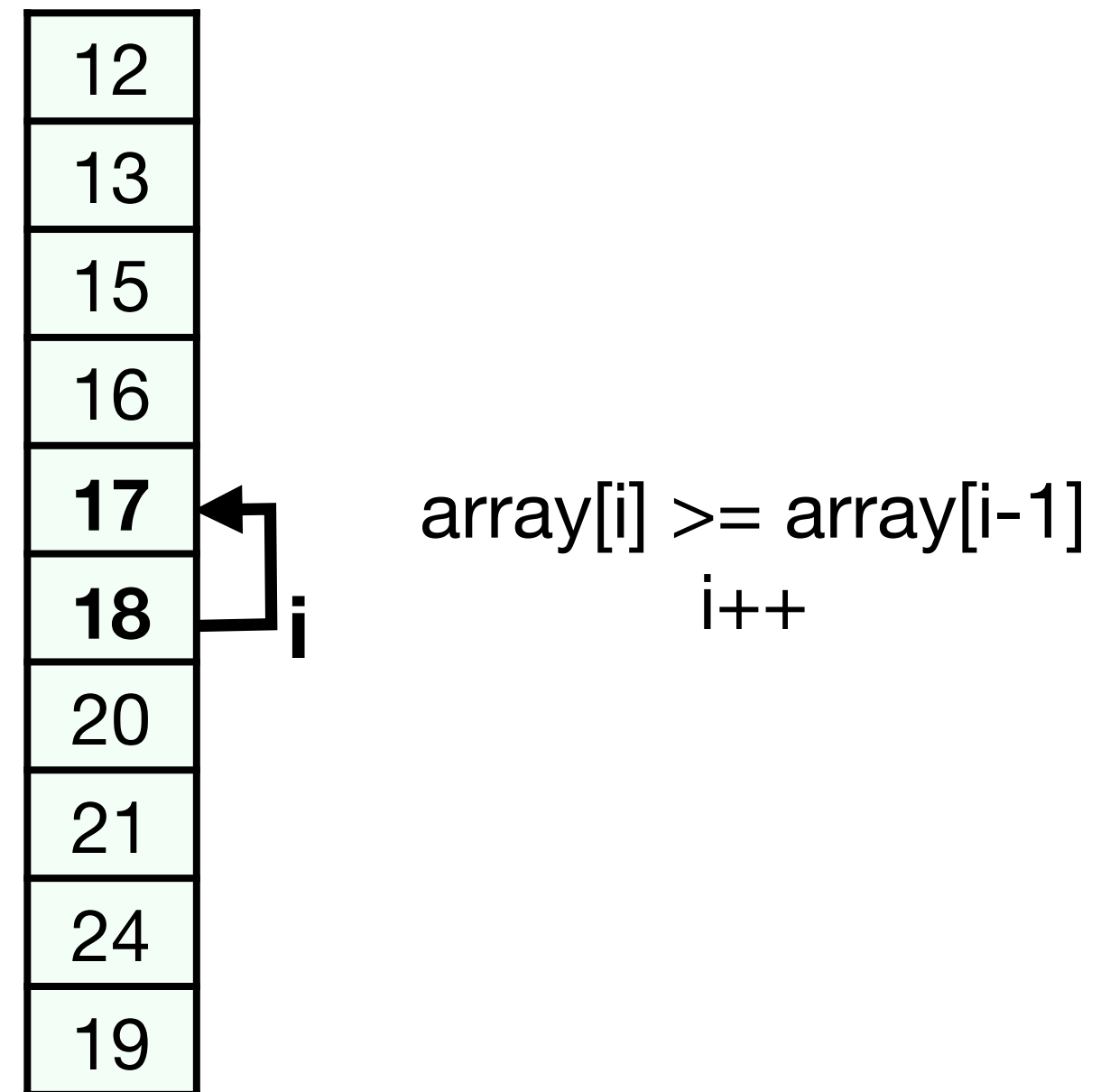


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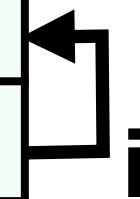
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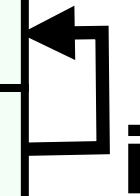
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Gnome Sort - solution

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References

- https://en.wikipedia.org/wiki/Gnome_sort