ECE 220

A special on Quicksort: Lecture x000B+

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

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  - Recursive vs. iterative.
- Main point: understand one variety and understand it well.

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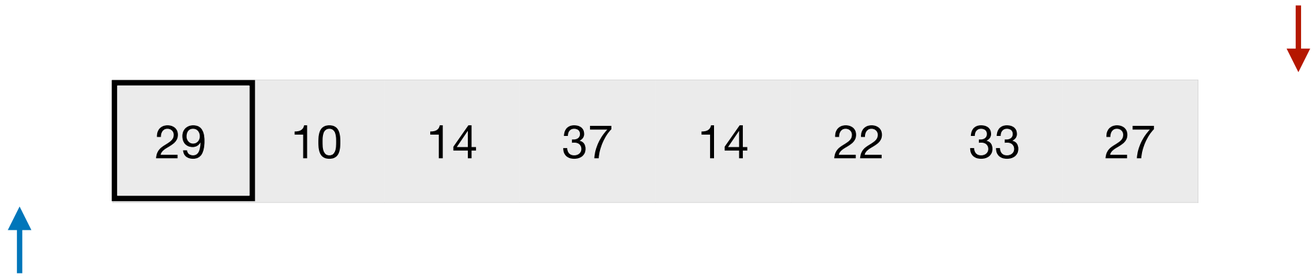

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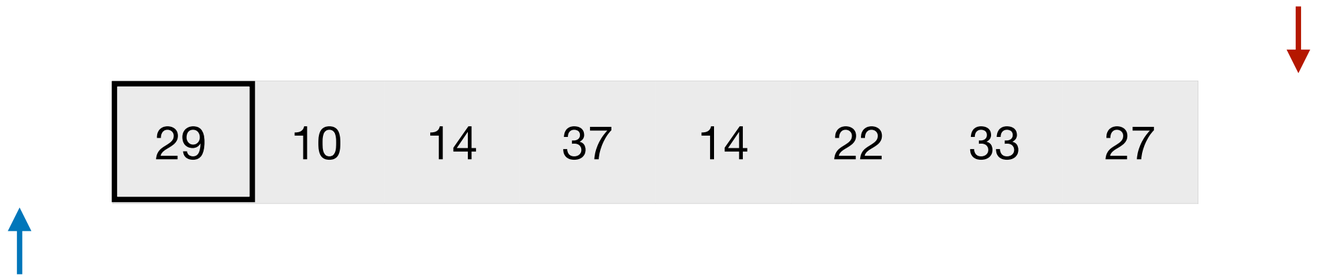

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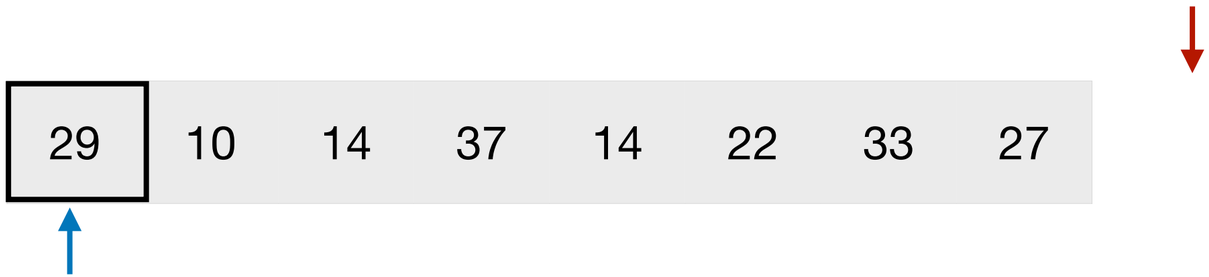

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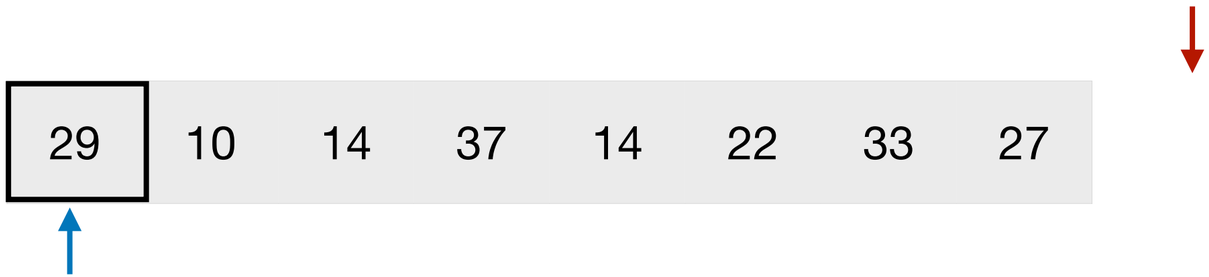

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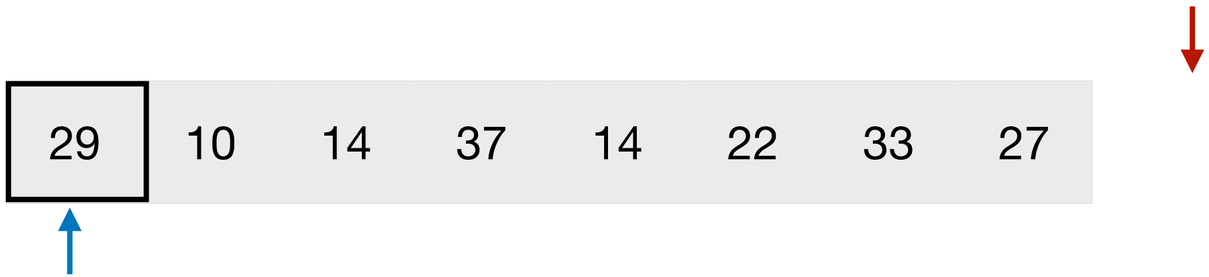

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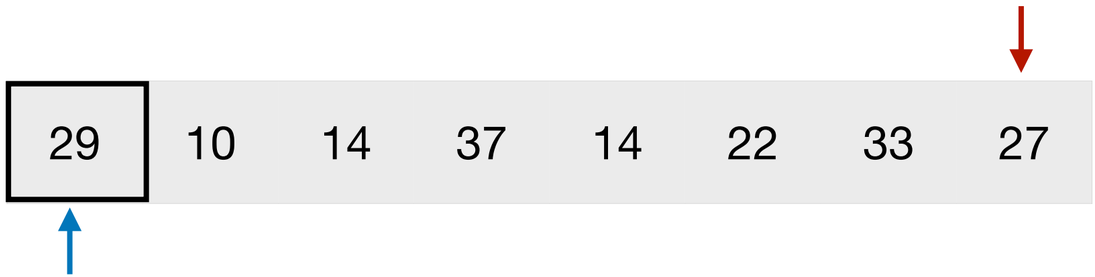

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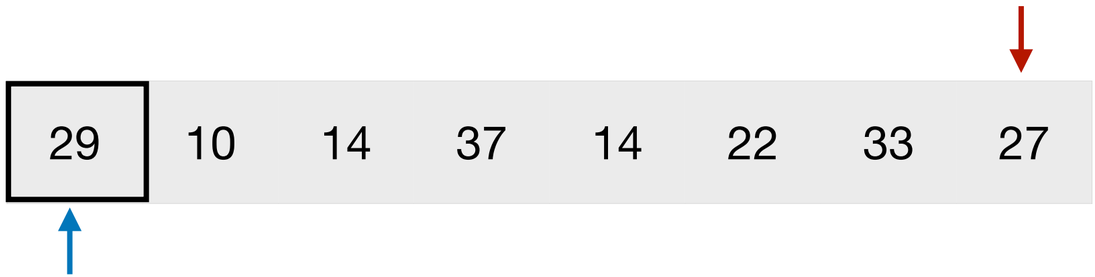

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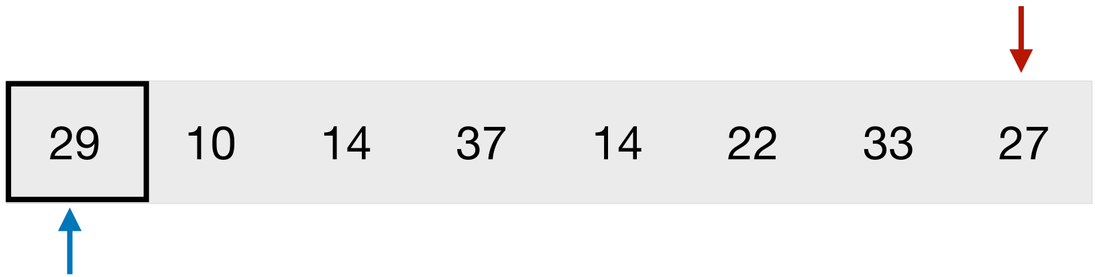

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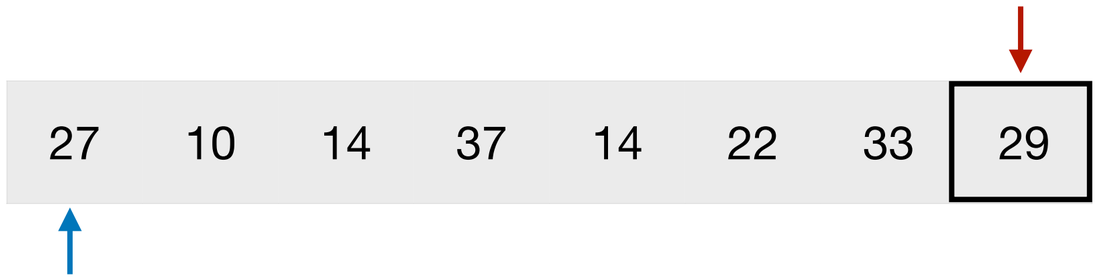

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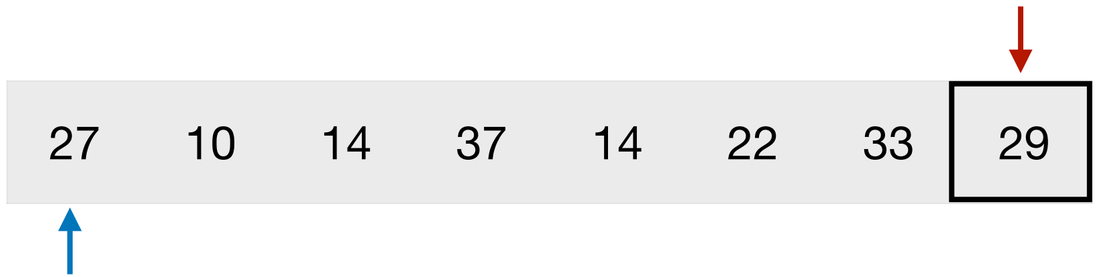

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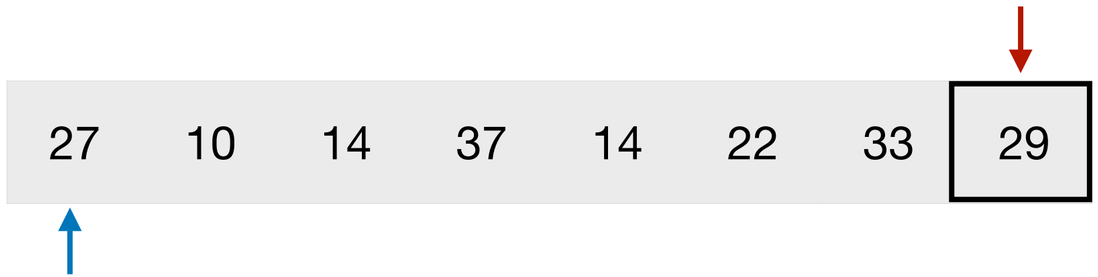

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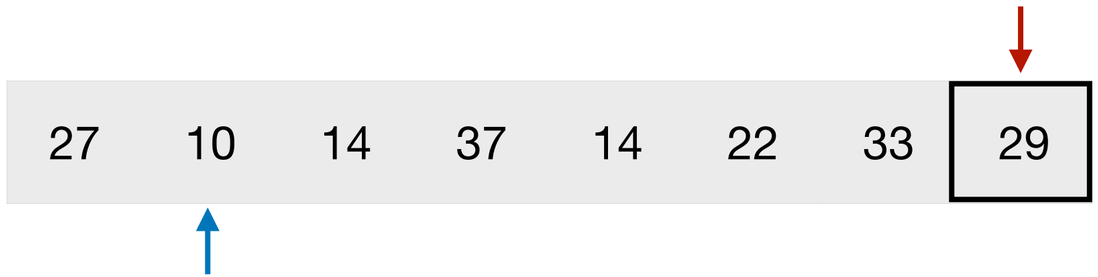

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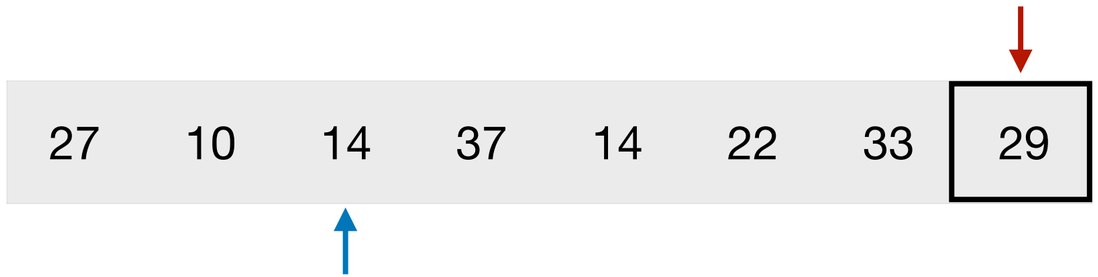

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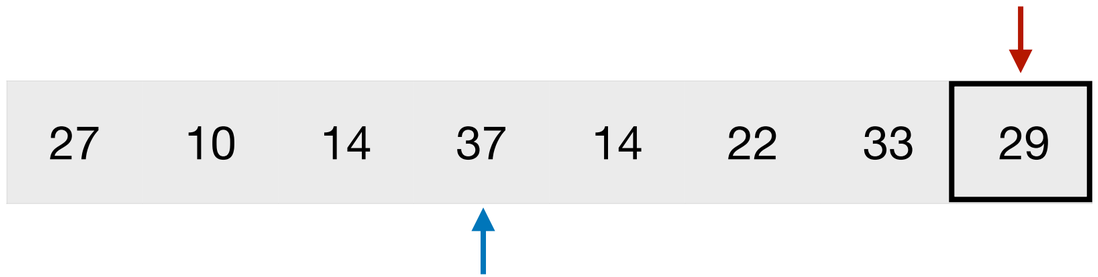

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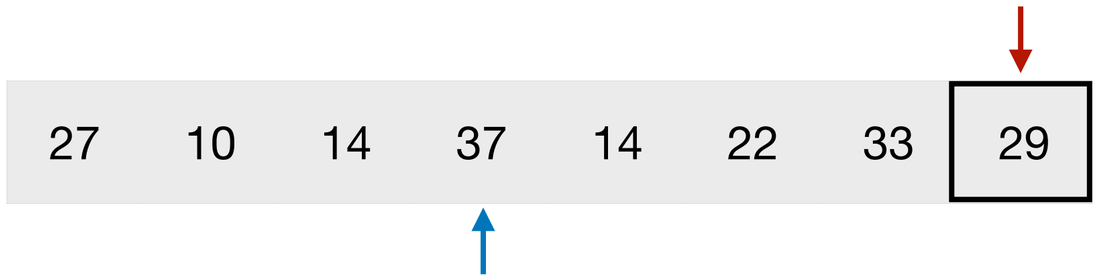

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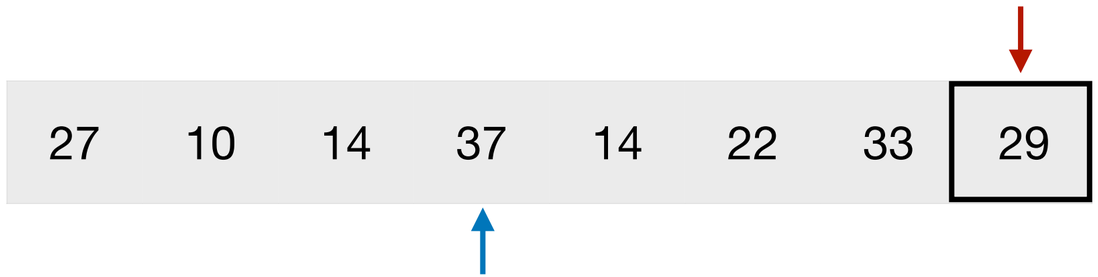

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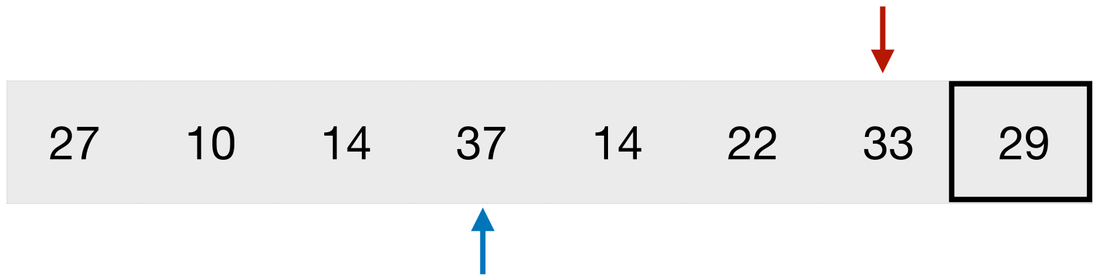

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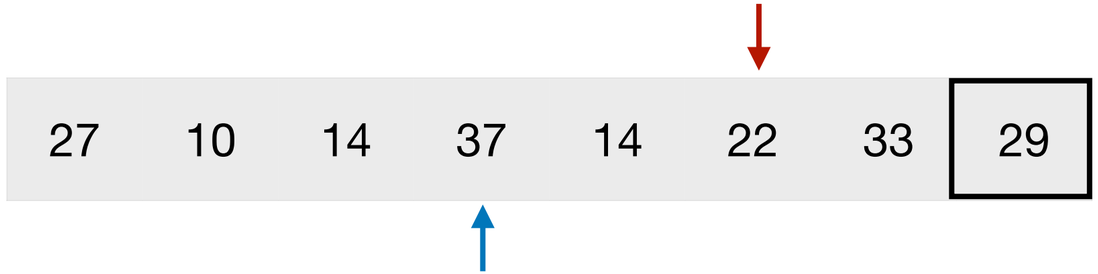

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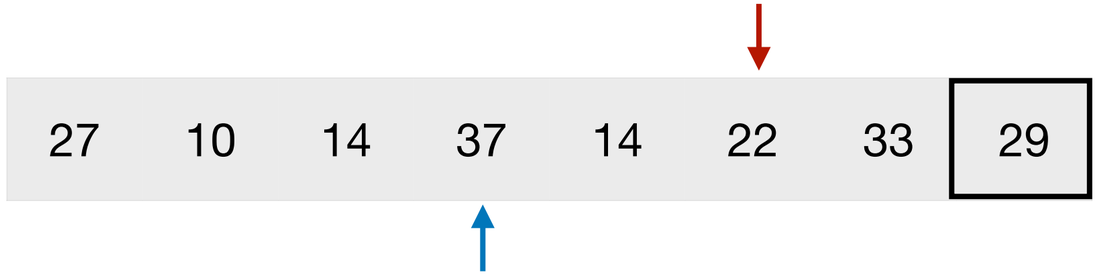

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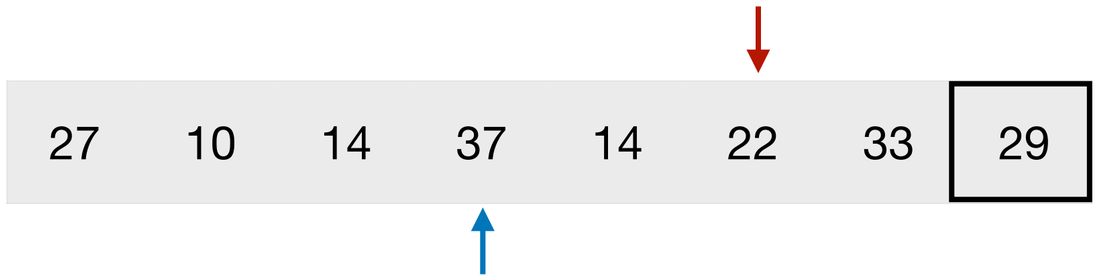

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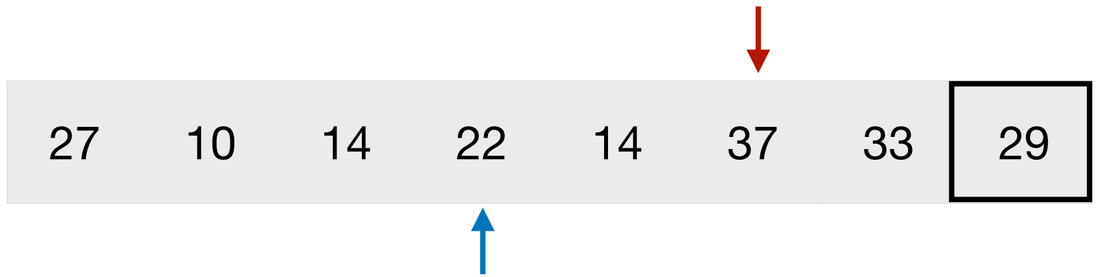

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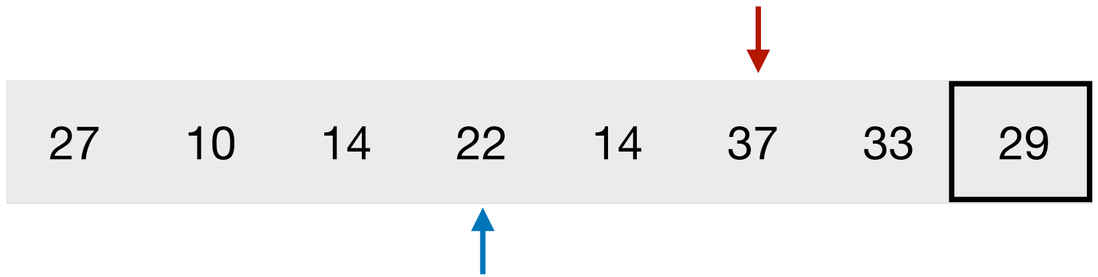

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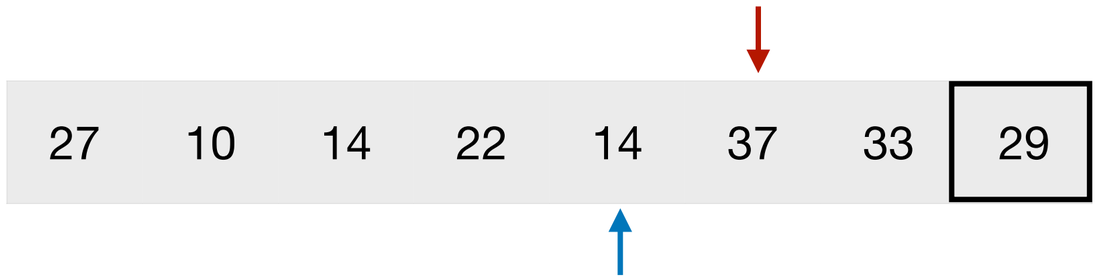

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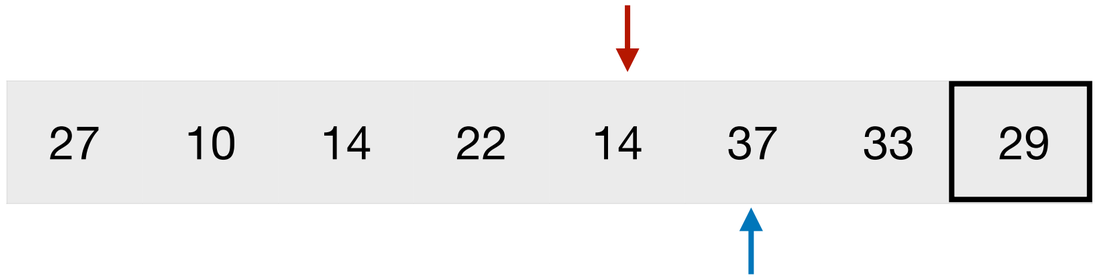

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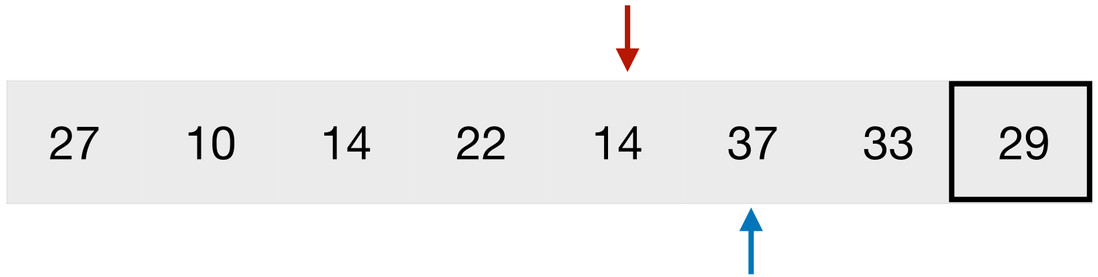

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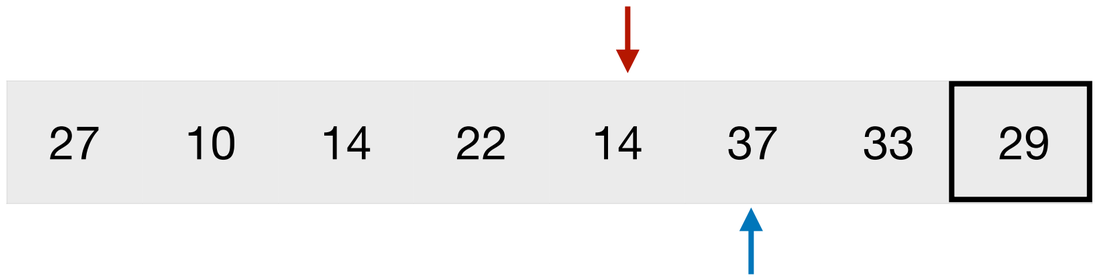

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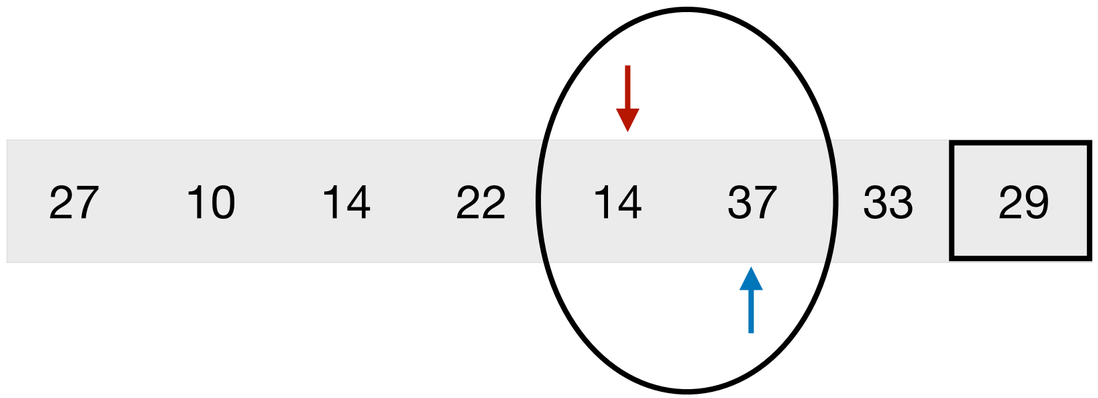

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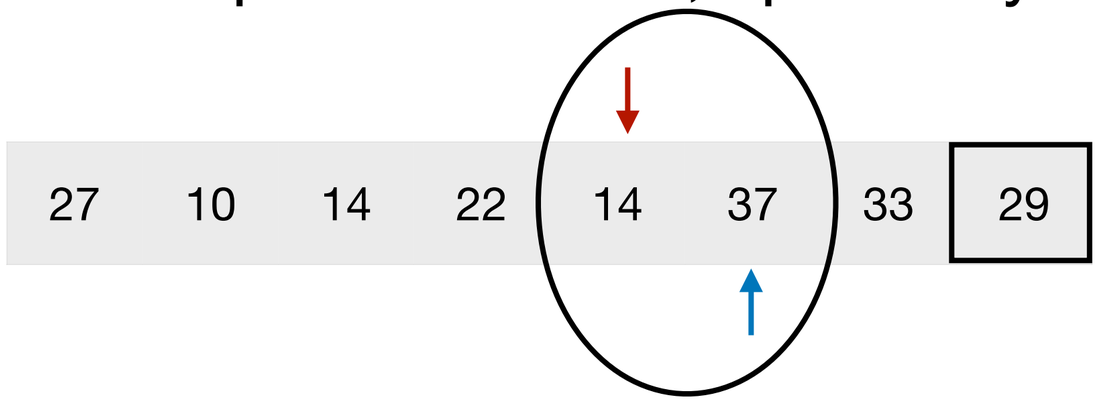

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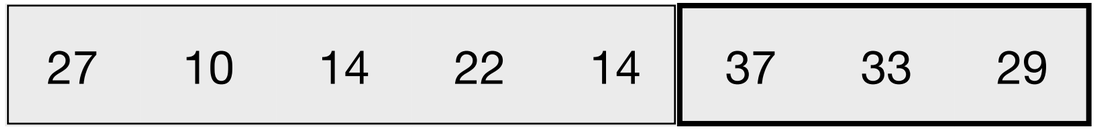

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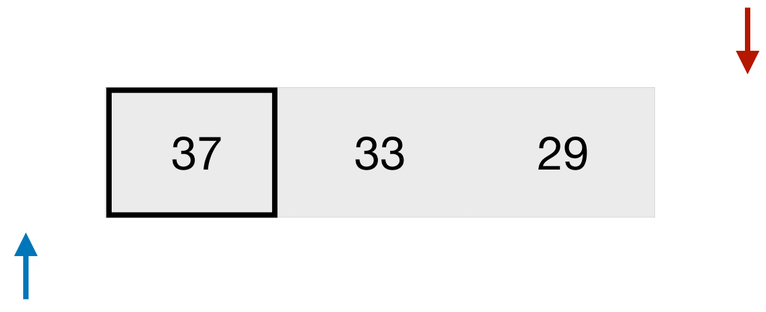

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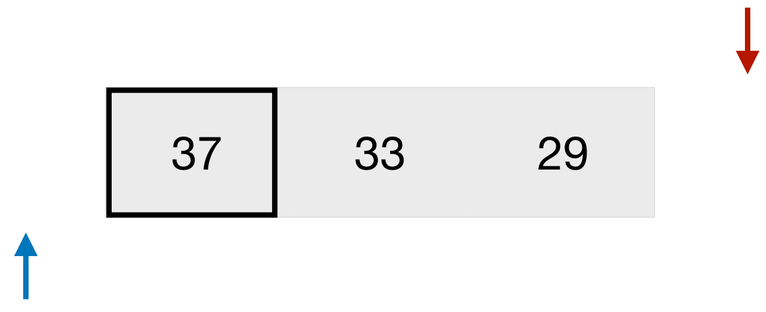

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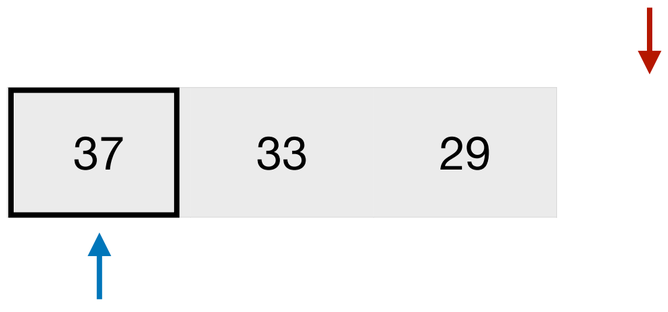

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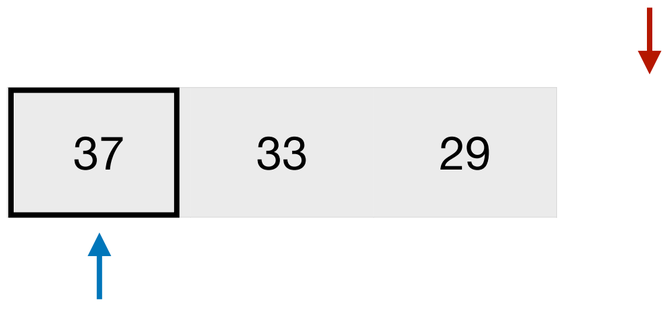

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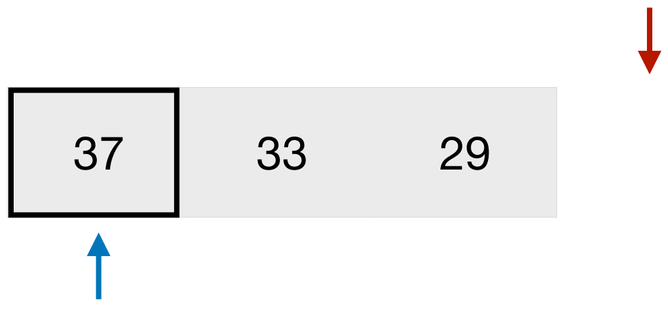

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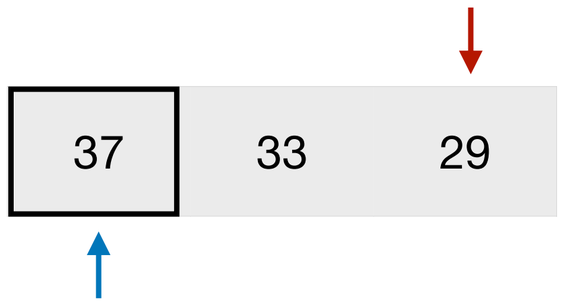

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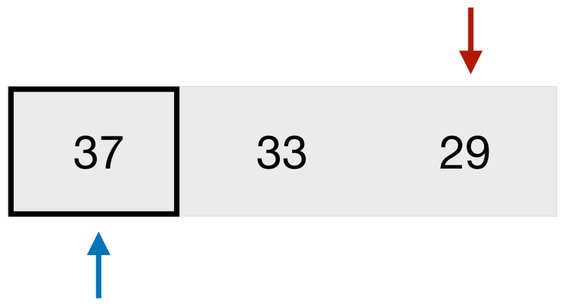

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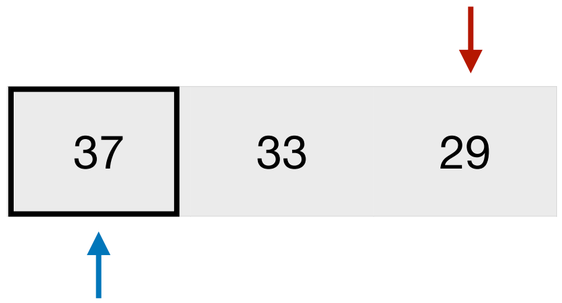

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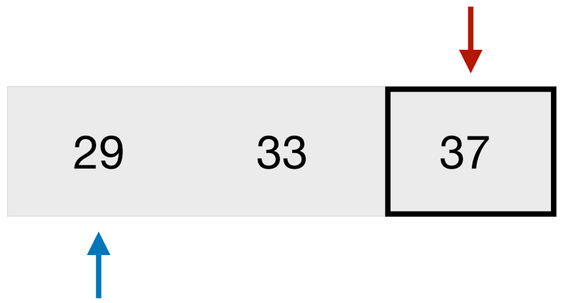

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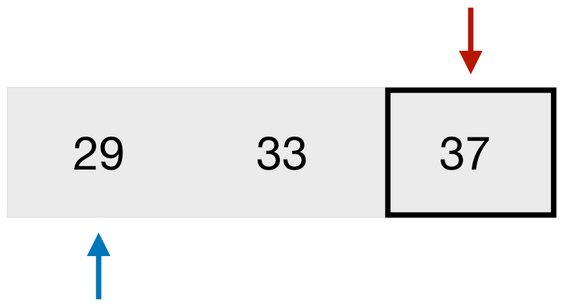

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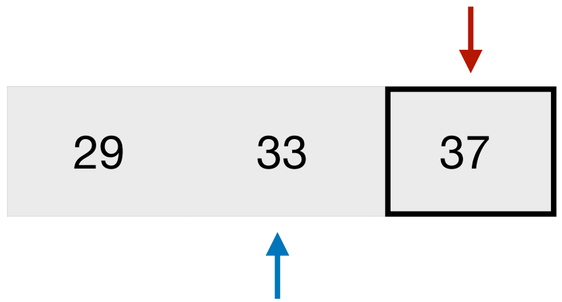

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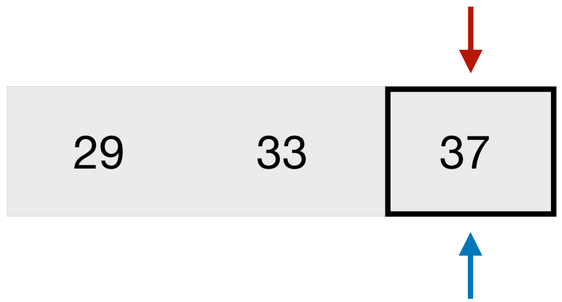

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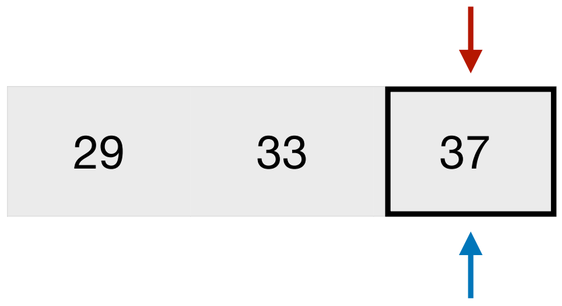

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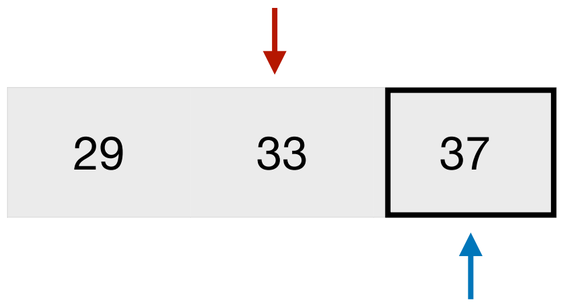

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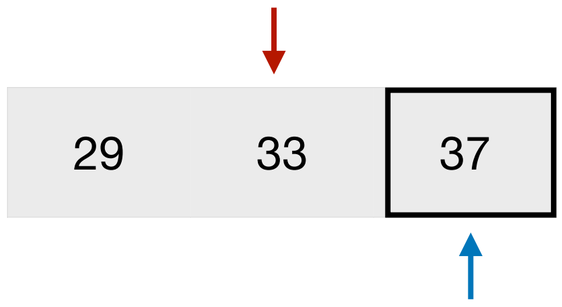

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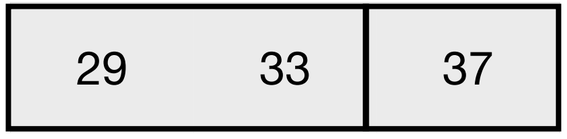

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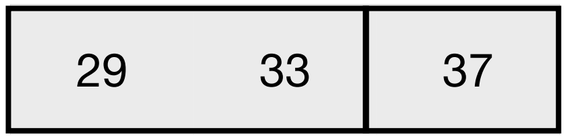

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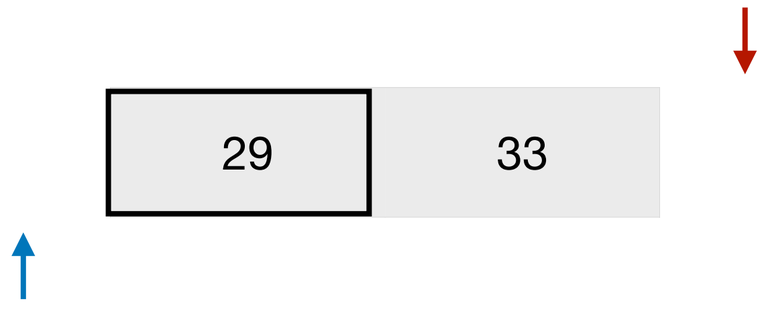

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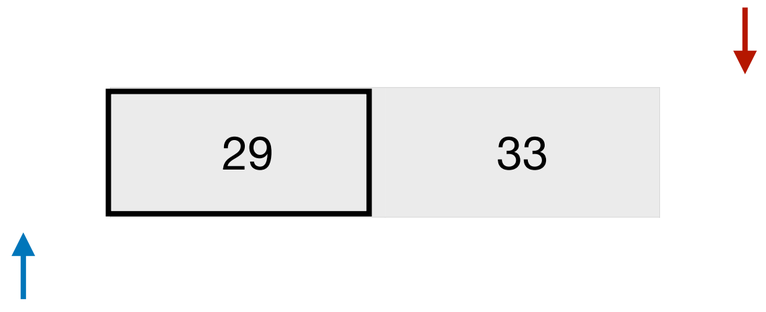

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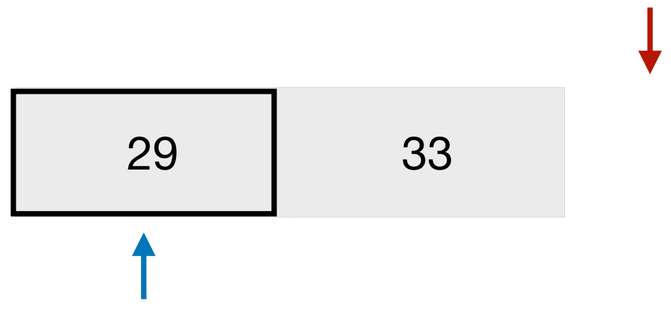

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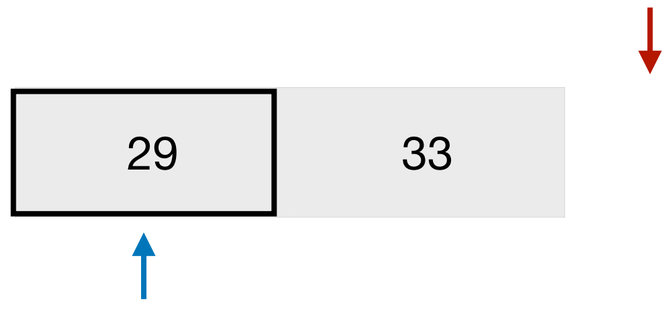

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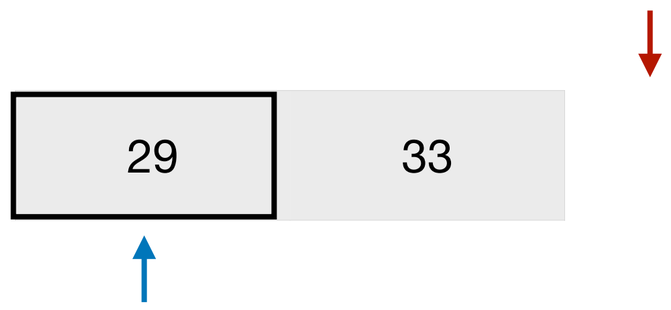

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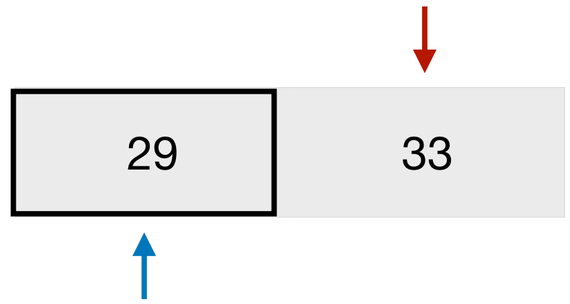

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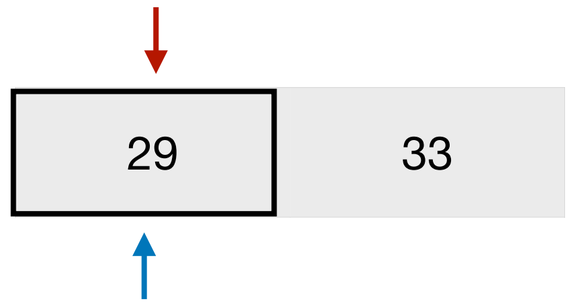

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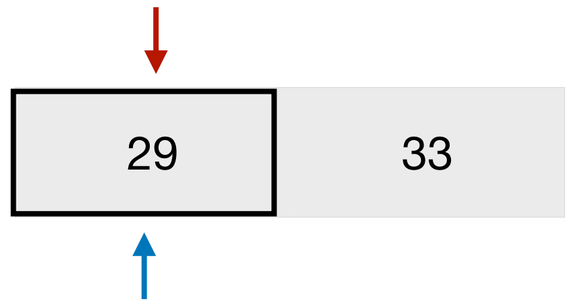

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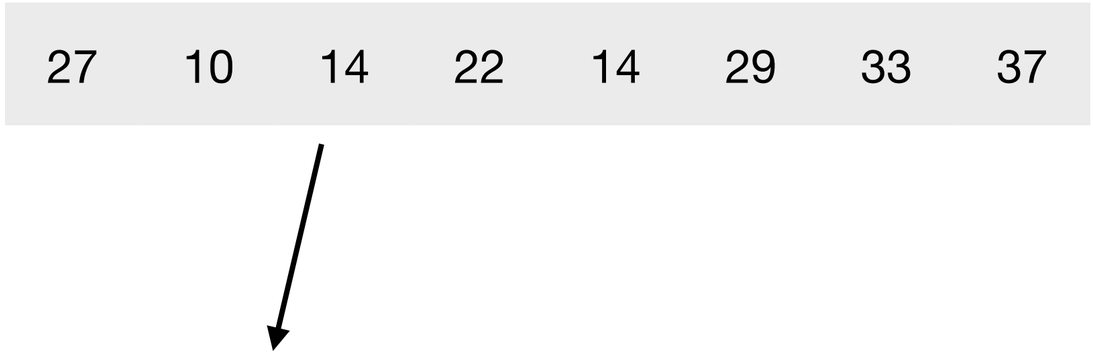

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Follow the steps on this array yourself.

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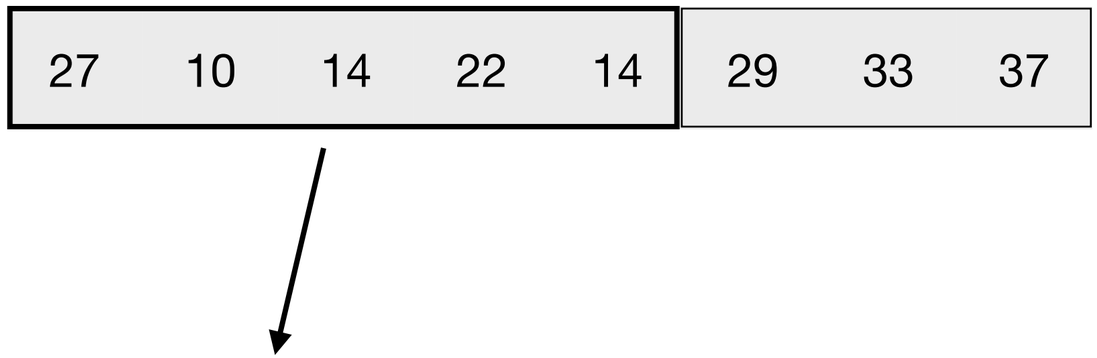

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Implementation

- Need mechanism to keep track of left/right pointers as we repeat on sub arrays — *use a STACK!*

- See https://github.com/iabraham/ece220-fa25/blob/main/lec11_1002/advanced/quicksort.c for an iterative version using stack.

- Usually implemented with *recursion:* Topic of next lecture!