

## QuickSort

Notebook: AlgorithmsYoutube

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Quick Sort

time complexity:  $n \log n$

4 5 ~~4~~ 3 2 1  
    ↖    ↗

4 5 1 2 3  
↑       ↑  
L       R

2 5 1 4 3  
  ↑   ↑  
  L   R

2 1 5 4 3  
  ↑   ↑   ↖   ↗  
  R   L

2 1 3 4 5  
⇓

2 1  
  ↑   ↑  
  L   R

1 2 3 4 5  
⇓

4 5  
  ↑   ↑  
  L   R

1 2 3 4 5 ⇐ 4 5

