

Quick Sort

3 2 5 0 1 8 7 6 9 4

mark as
pivot

-1 0 1 2 ...

3 2 5 0 1 8 7 6 9 4

↑
last smaller
than pivot
index

$3 < 4$

3 2 5 0 1 8 7 6 9 4

↑
last smaller
than pivot
index

...

$5 > 4$

3 2 5 0 1 8 7 6 9 4

↑
last smaller
than pivot
index

$0 < 4$

3 2 5 0 1 8 7 6 9 4

↑
last smaller than
pivot index
(l*s*i)

current index \neq l*s*i

l*s*i++ and swap

3 2 0 5 1 8 7 6 9 4

↑
l*s*i

↓ Do recursively for left
& right halves