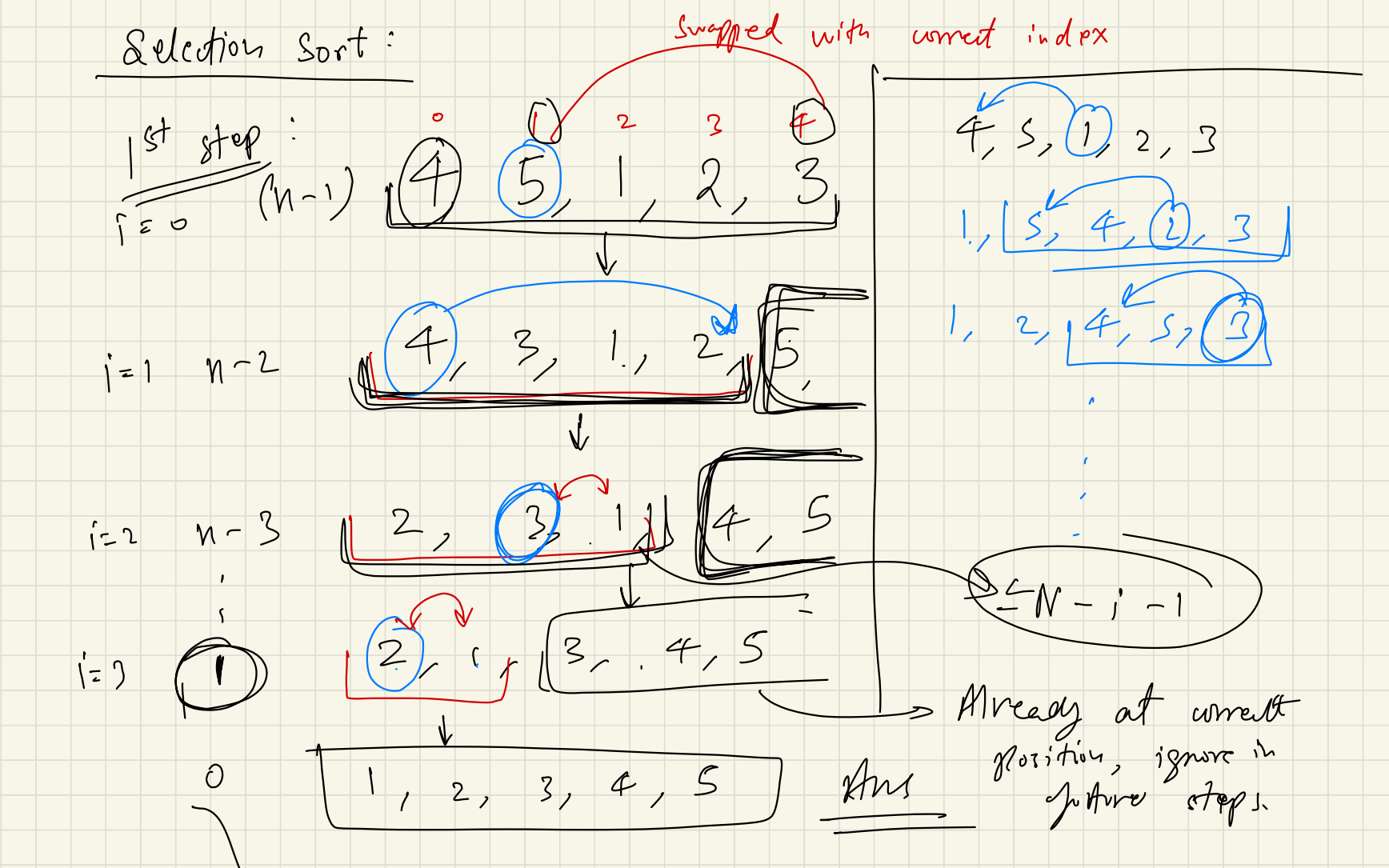
Selection Sort :



Total Comparisons:

$0 + 1 + 2 + \dots + (n-1)$

$$\frac{(n-1) * (n-1+1)}{2}$$

$$= \frac{n(n-1)}{2} = \frac{n^2 - n}{2}$$

Why constants removed?

Why lower dominating??

??

Time Complexity

Worst Case = $O(n^2)$

Best Case = $O(n^2)$

Stable = No

// It performs well on small lists / arrays.