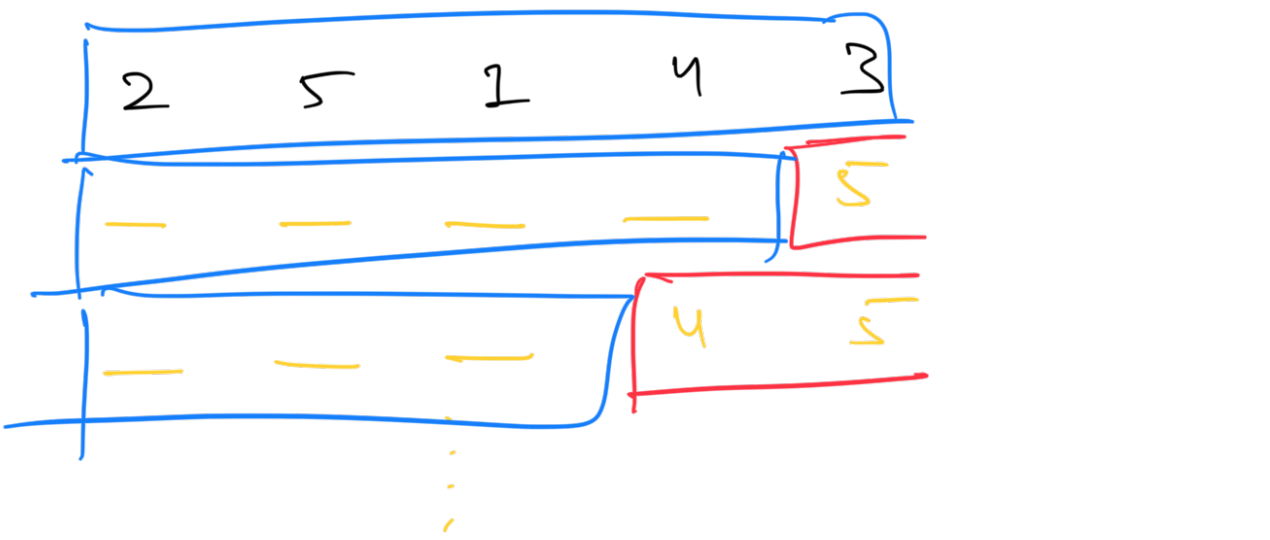
bubble sort

selection sort

insertion sort

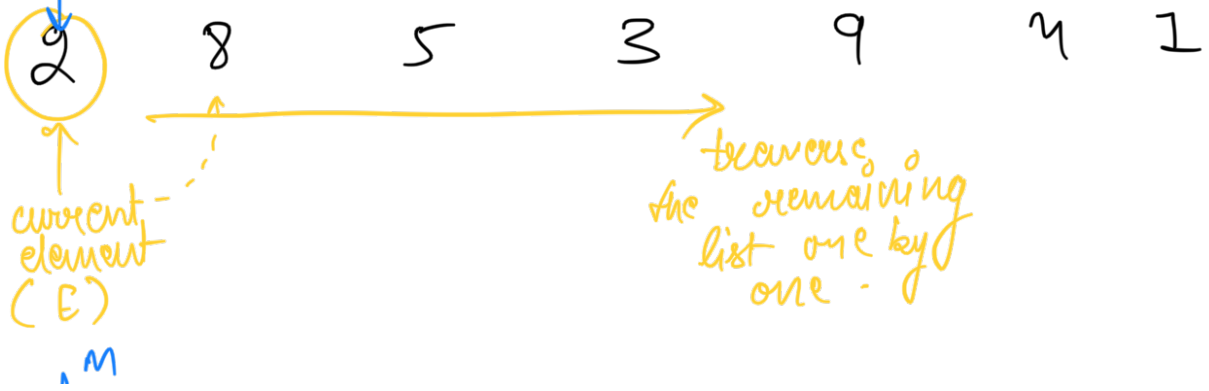
intro to merge sort

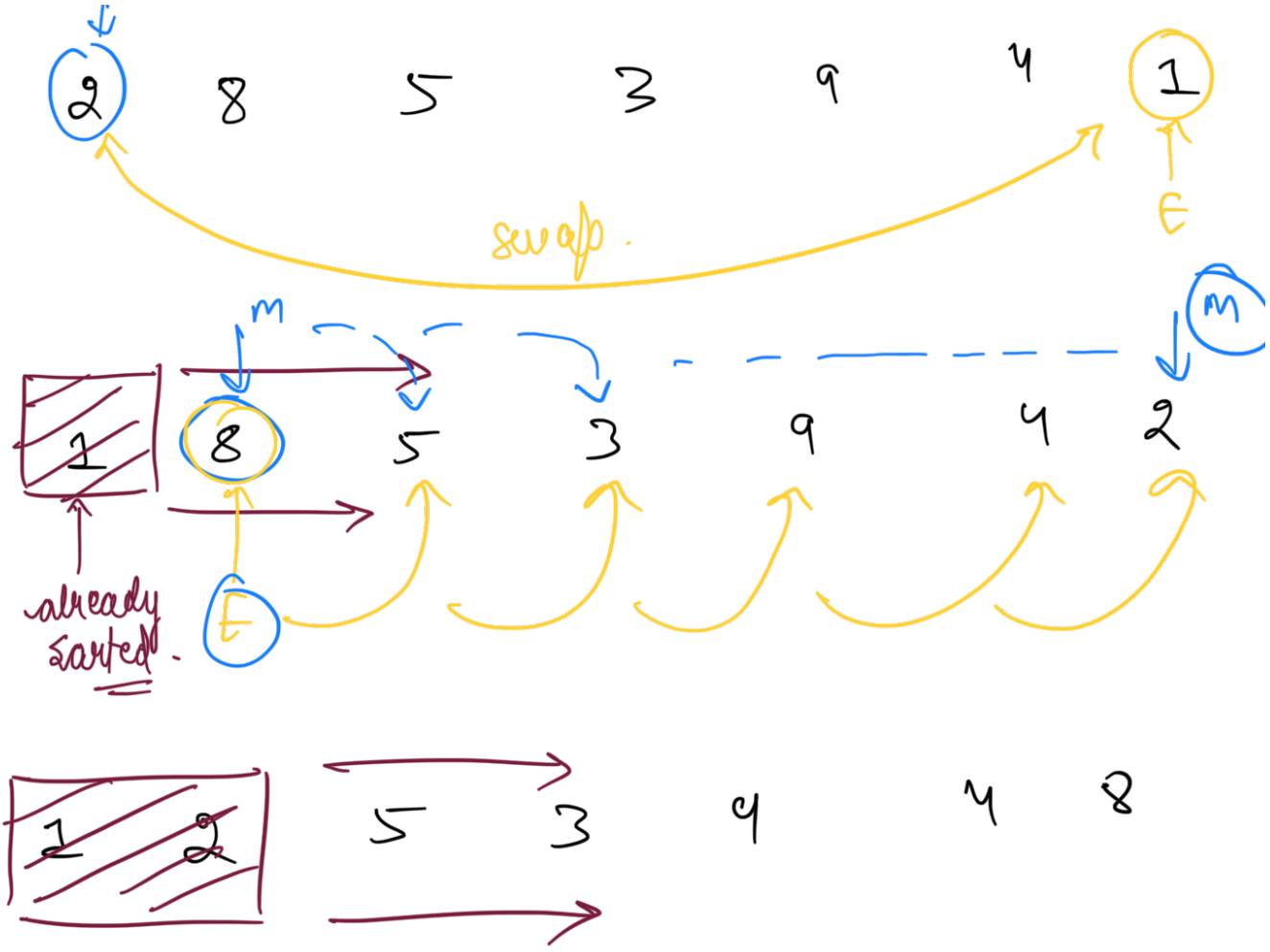
with recursion



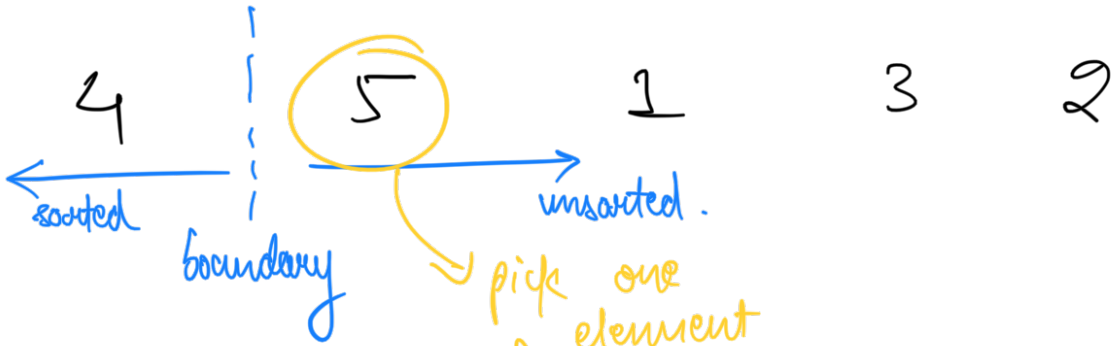
2 Selection Sort

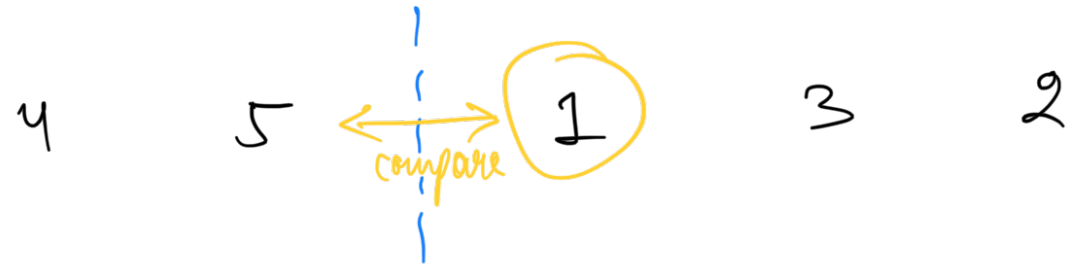
current minimum (M)





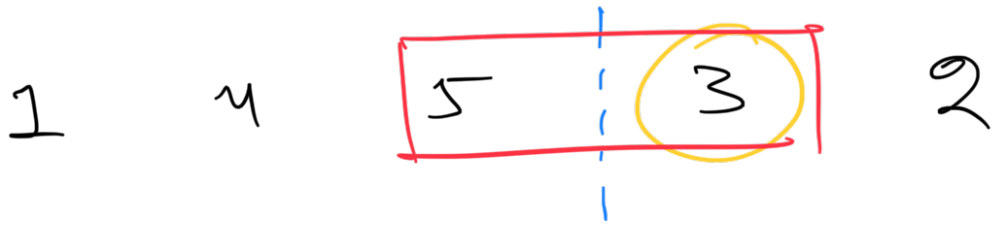
(3) Insertion Sort





→ 4 1 5 3 2

→ 1 4 5 3 2



1 4 3 5 2

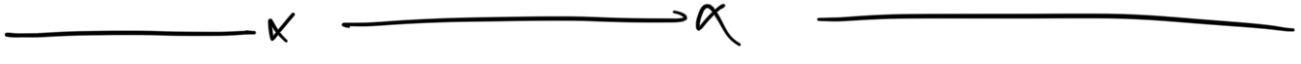
1 3 4 5 2

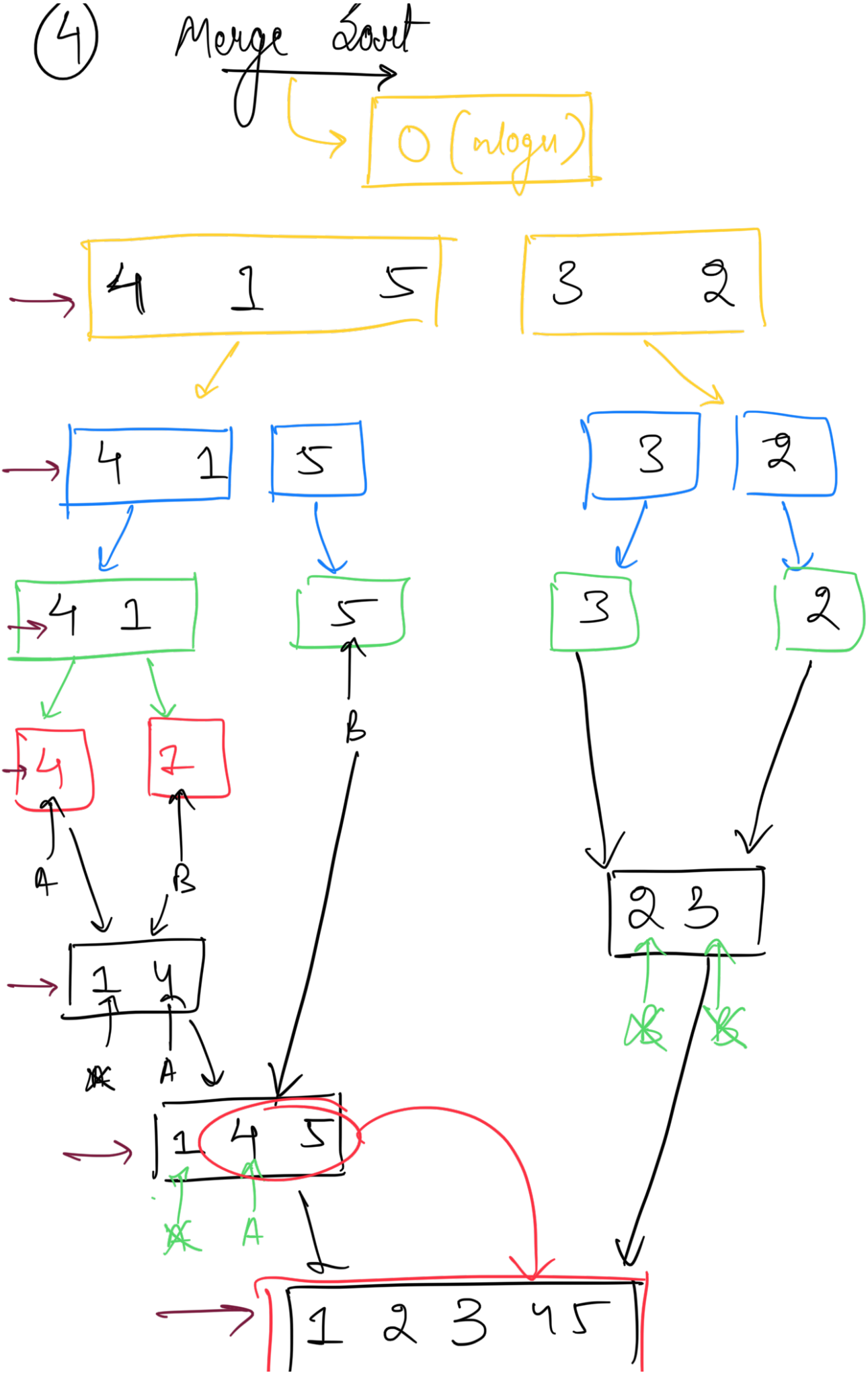
1 3 4 2 5

1 3 2 4 5

1 2 3 4 5

1 2 3 4 5

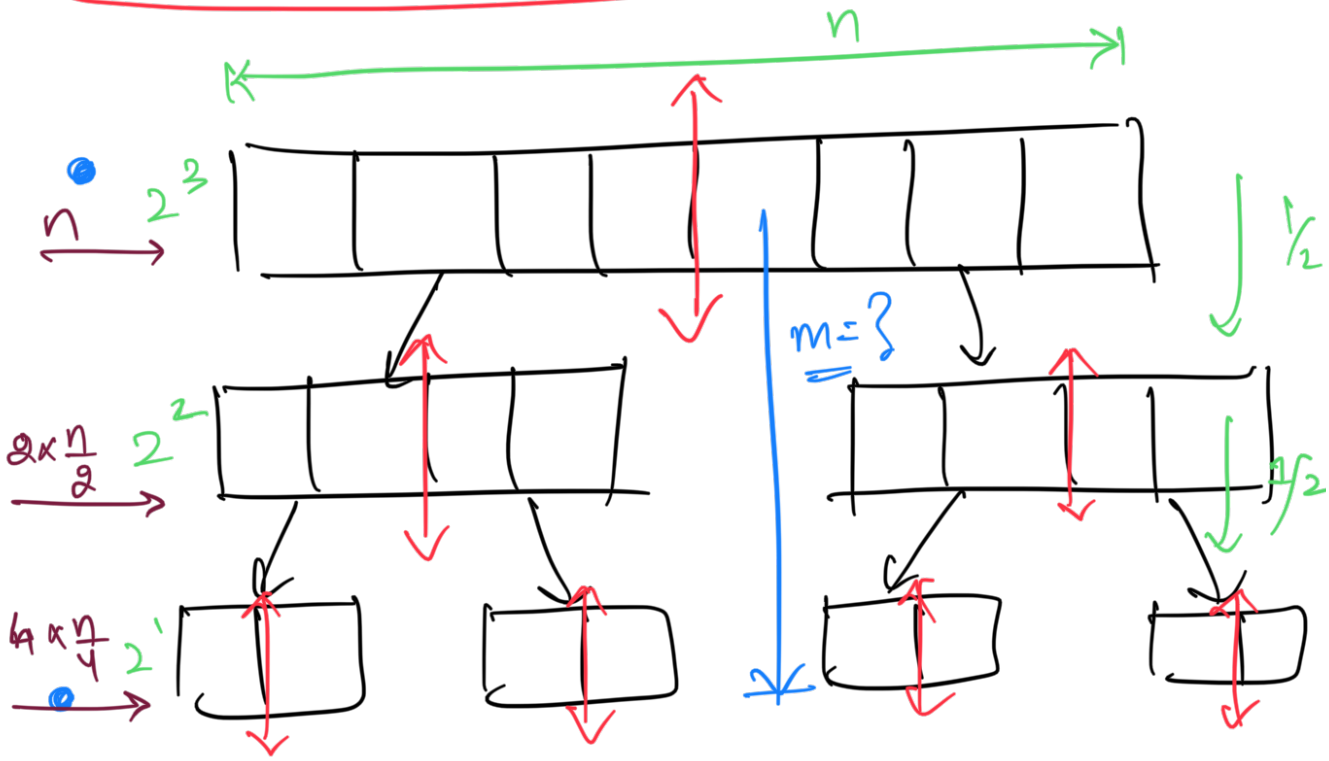



(4) Merge Sort
O(nlogn)
4 1 5
3 2
4 1
5
3
2
4 1
5
3
2
4
7
A
B
B
1 4
2 3
A
1 4 5
A
1 2 3 4 5

$\log_a(b) = x$

$a^x = b$

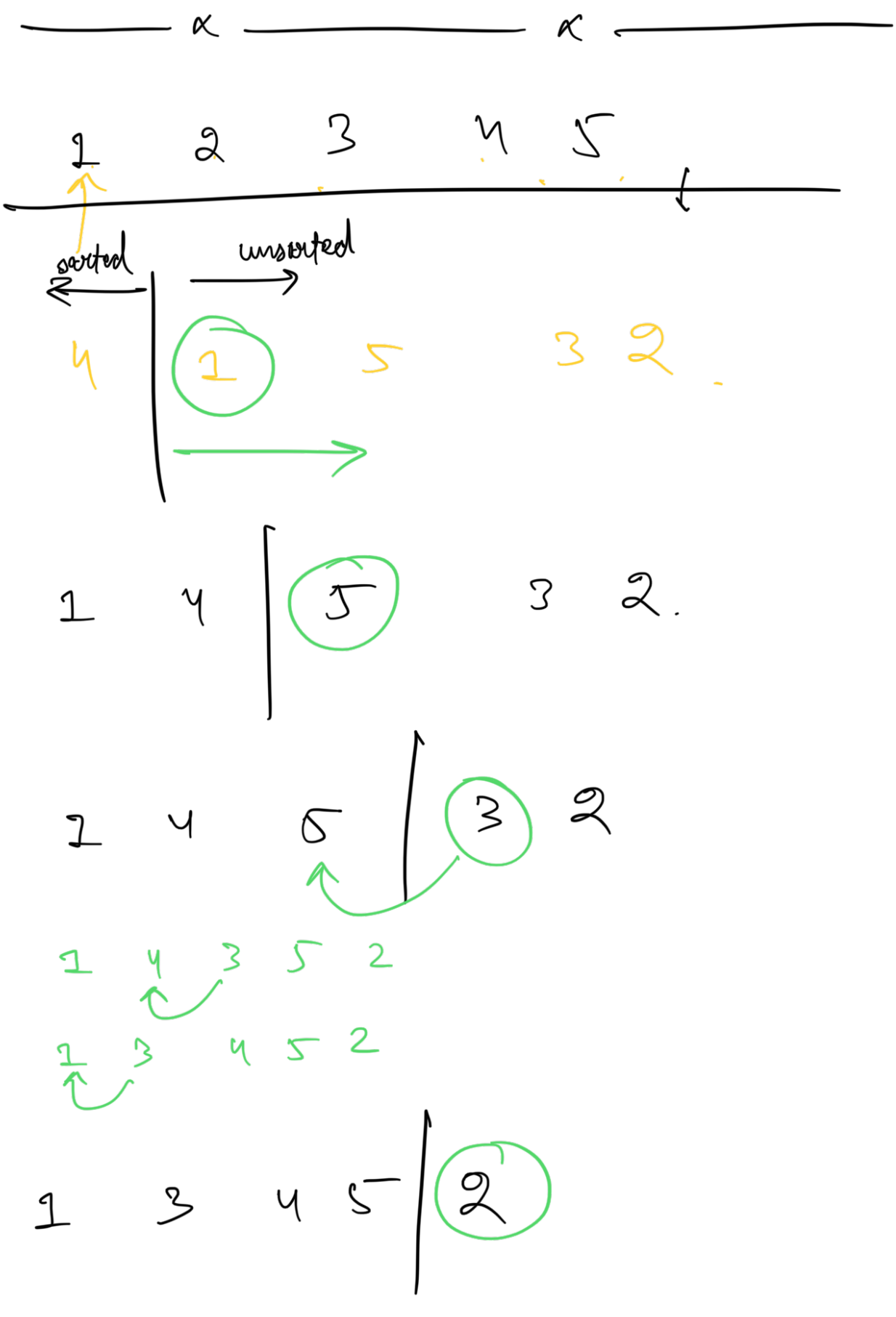
log.



$2^{?} \rightarrow 8 \rightarrow a^x = b$

$\log_a(b) = x$

$\log_2 8$

$\rightarrow \boxed{\log_2 n} \rightarrow$ no. of steps.

→ n log n