

Array: n elements \rightarrow height: $\log(n)$

Recursion: until the array has ≤ 1 element

// $\log(N)$??

While $\log(n) > 0$:

Smaller array : $0 \rightarrow n/2$

$[0 \dots n/4], [n/4+1 \dots n/2]$

Root of left tree (height 1) = $n/4$

Larger array: $n/2+1 \rightarrow n$

Root of tree (height 0) : array at index $n/2$