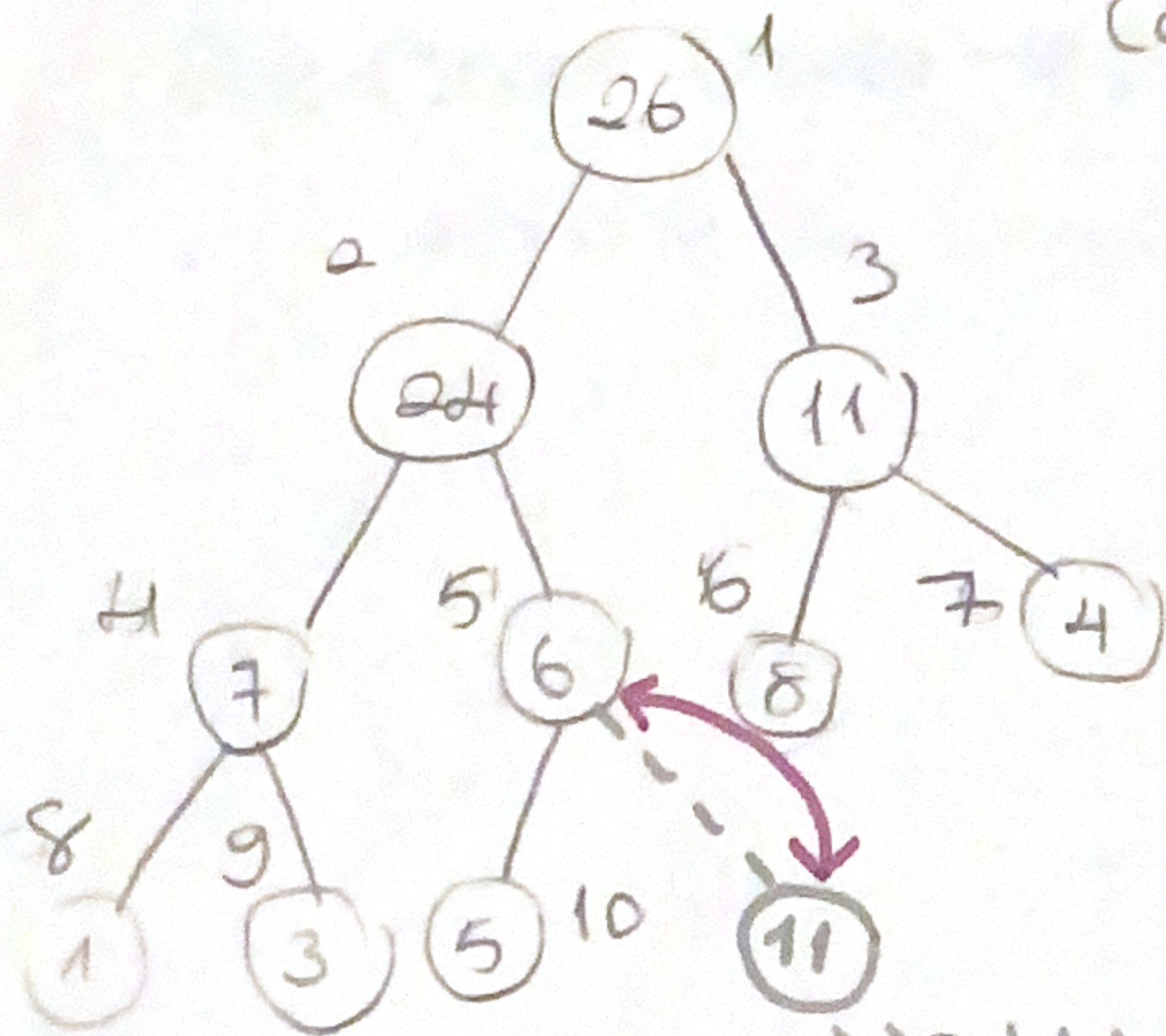


Heaps



Completely balanced
binary tree with heap
property.

Heapify $\rightarrow O(\log n)$

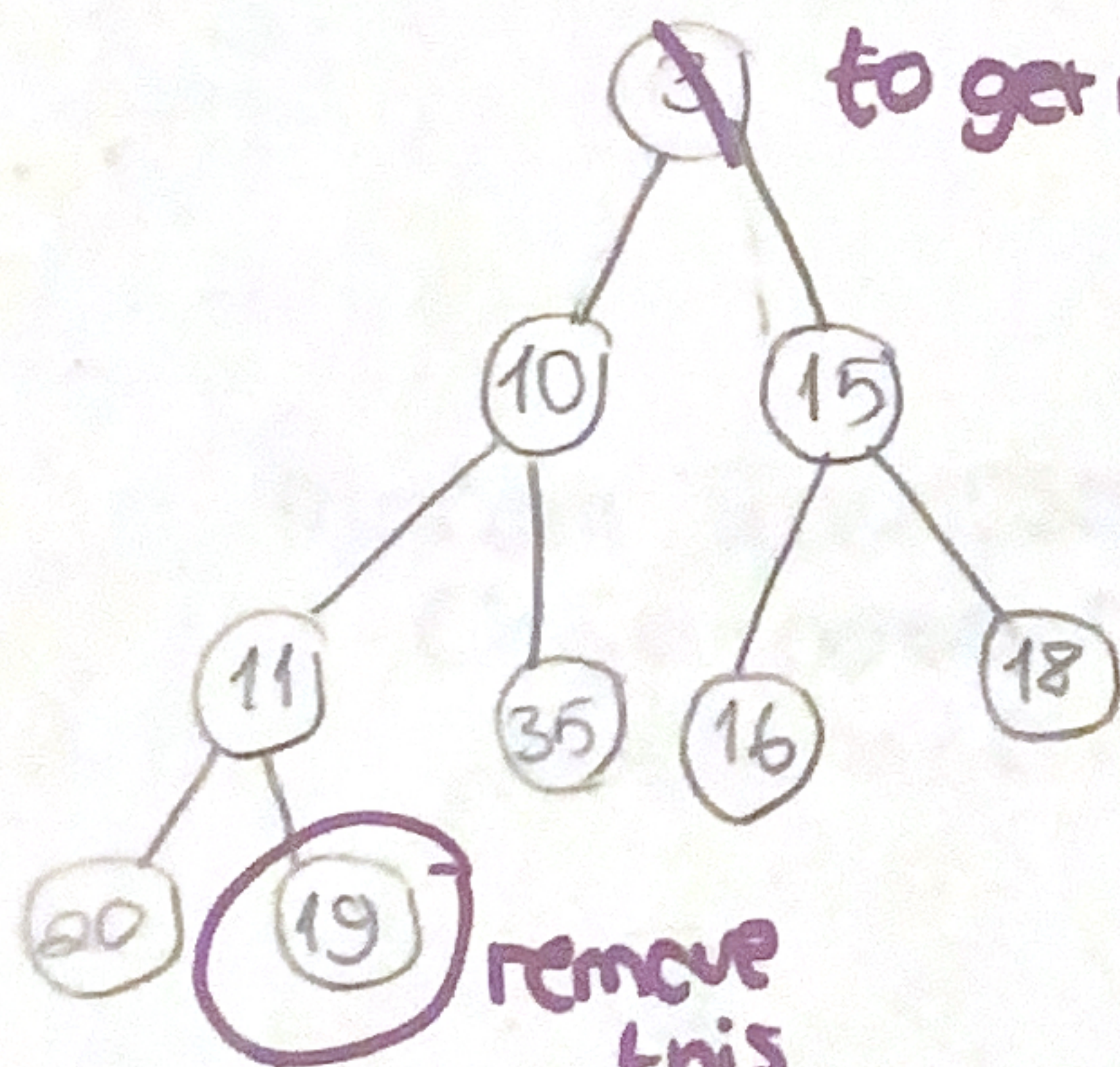
Insert to last element and do
heapify

(K, v)

26	24	11	7	...
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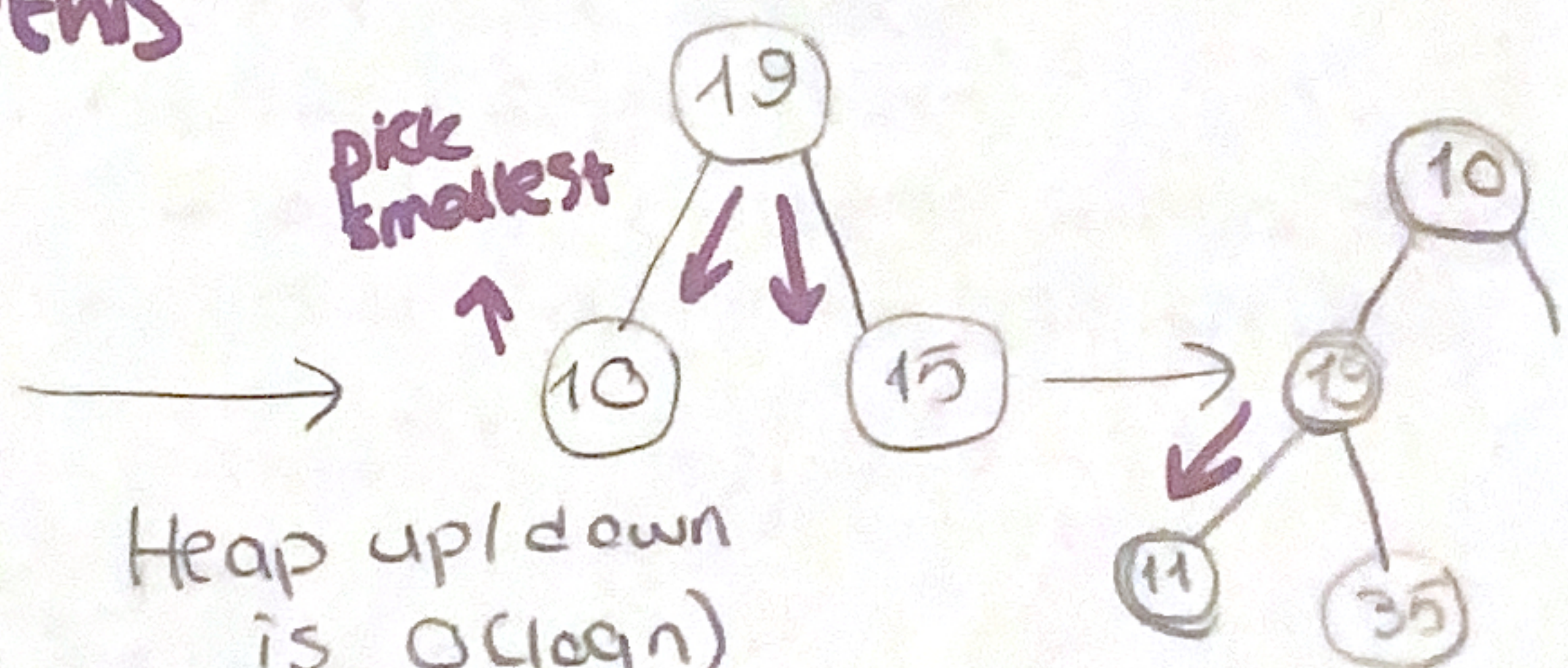
Deletion

add here,
then swap



remove
this
and insert
to top

to get rid of this



Heap up/down
is $O(\log n)$

better than array brute force
search (linear)

Heapify:

$$\lfloor \frac{n}{2} \rfloor$$

\rightarrow first
parent
from
end

(11 here)

then everything
before that