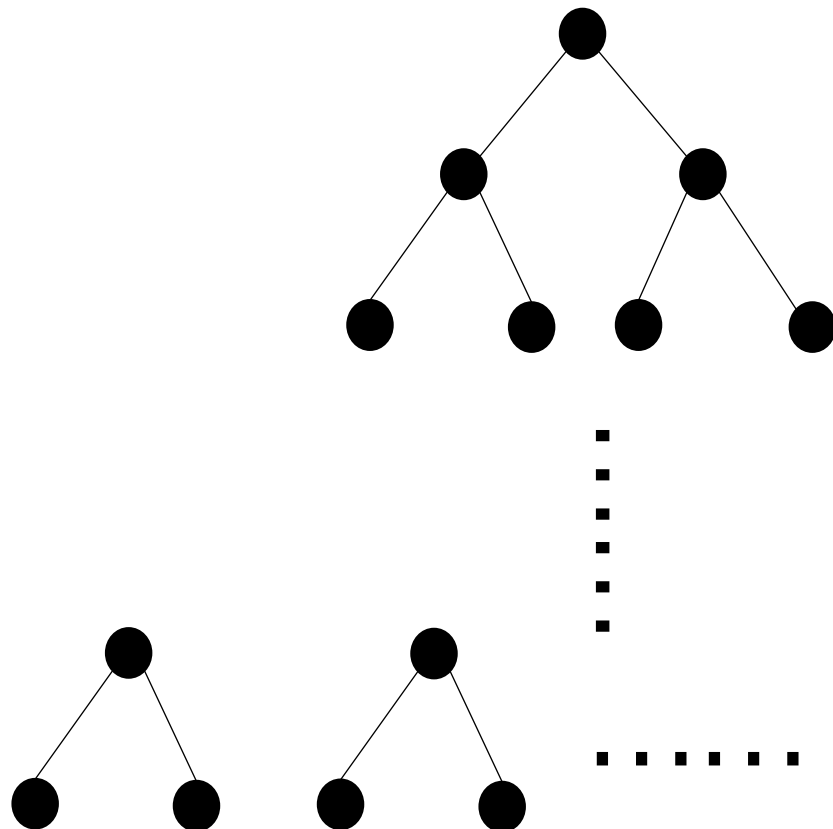


# Recurrence Tree T(n)

Depth  
 $\log_b n + 1$



Level

Computation

Level 1

$$2^0 \times O(n \log n)$$

Level 2

$$2^1 \times O\left(\frac{n}{2^1} \log \frac{n}{2^1}\right)$$

Level j

$$2^{j-1} \times O\left(\frac{n}{2^{j-1}} \log \frac{n}{2^{j-1}}\right)$$

Totally  $k = \log_b n + 1$  levels

Level k

$$2^{k-1} \times O\left(\frac{n}{2^{k-1}} \log \frac{n}{2^{k-1}}\right)$$