

Algorithms on trees: Height

- Height:

- height of a node v in T is the length of the longest path from v to any leaf

- Recursive formulation:

- if v is leaf, then its height is 0
- else $\text{height}(v) = 1 + \text{maximum height of a child of } v$

- Definition: the height of a tree is the height of its root

- Compute the height of tree T : $\text{int height}(T,v)$

- Height and depth are “symmetrical”

- Proposition: the height of a tree T is the maximum depth of one of its leaves.