

DP on trees

★ Questions

- ↳ diameter of a binary tree
- ↳ max path sum from any node to any
- ↳ max path sum from leaf to leaf
- ↳ Diameter of N-ary tree.

★ Identification

to save time
@ each node $\underbrace{\text{find right}}_{O(n)} \times \underbrace{\text{left}}_{O(n)}$
 $n \times n^2$

using DP we can reduce this !!!

★ General Syntax

[Int] solve(——)

[Base Case]

[Hypothesis]

[Induction]

→ ans
→ ans

temp = sum
ans = max(temp, relans.)
return temp

if root == null
return 0