Diameter of Binary Tree

$M\_D = max \left(left\_M\_D, right\_M\_D, left\_M\_C + right\_M\_C \right)$

$M\_C = max \left(left\_M\_C, right\_M\_C \right) + 1$

chain

3   2

2   1   1   1

chain

1   1
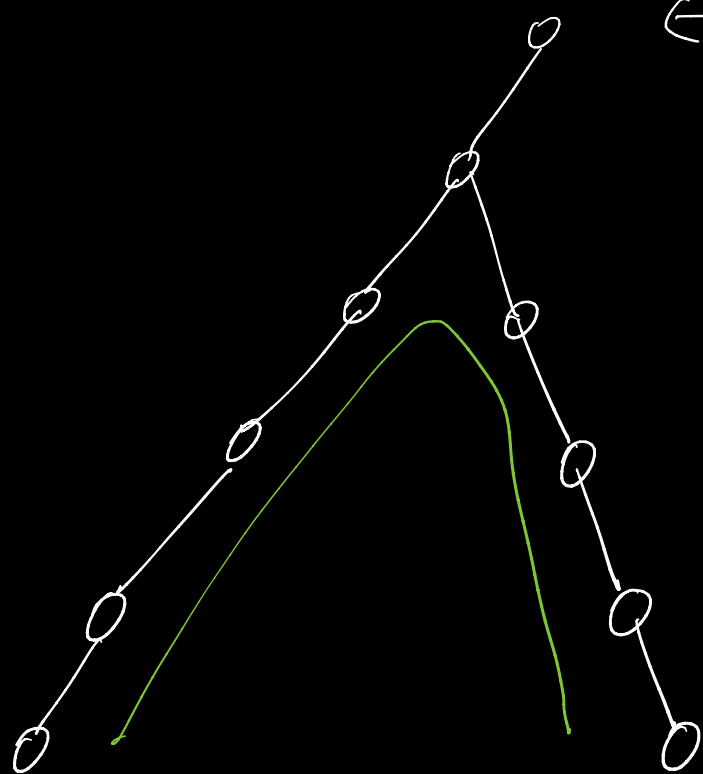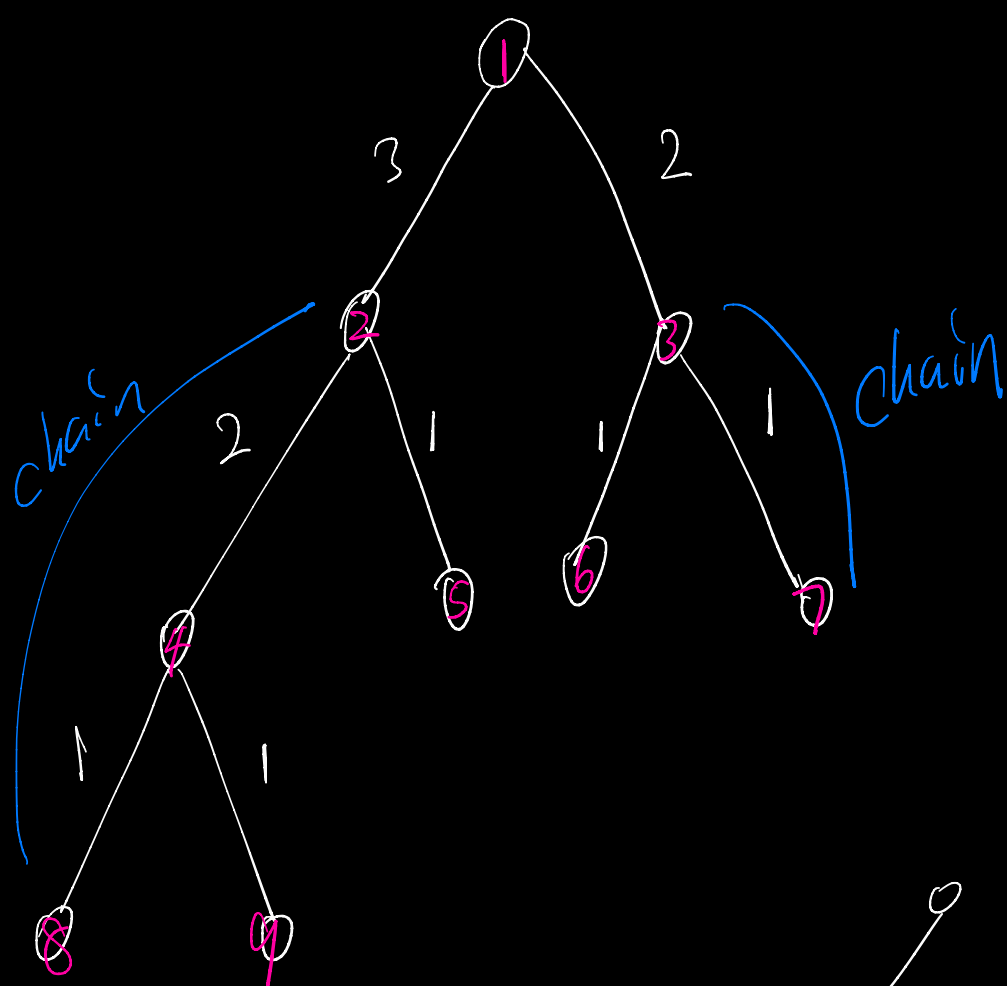
← longest diameter
may not pass through
root