In order:
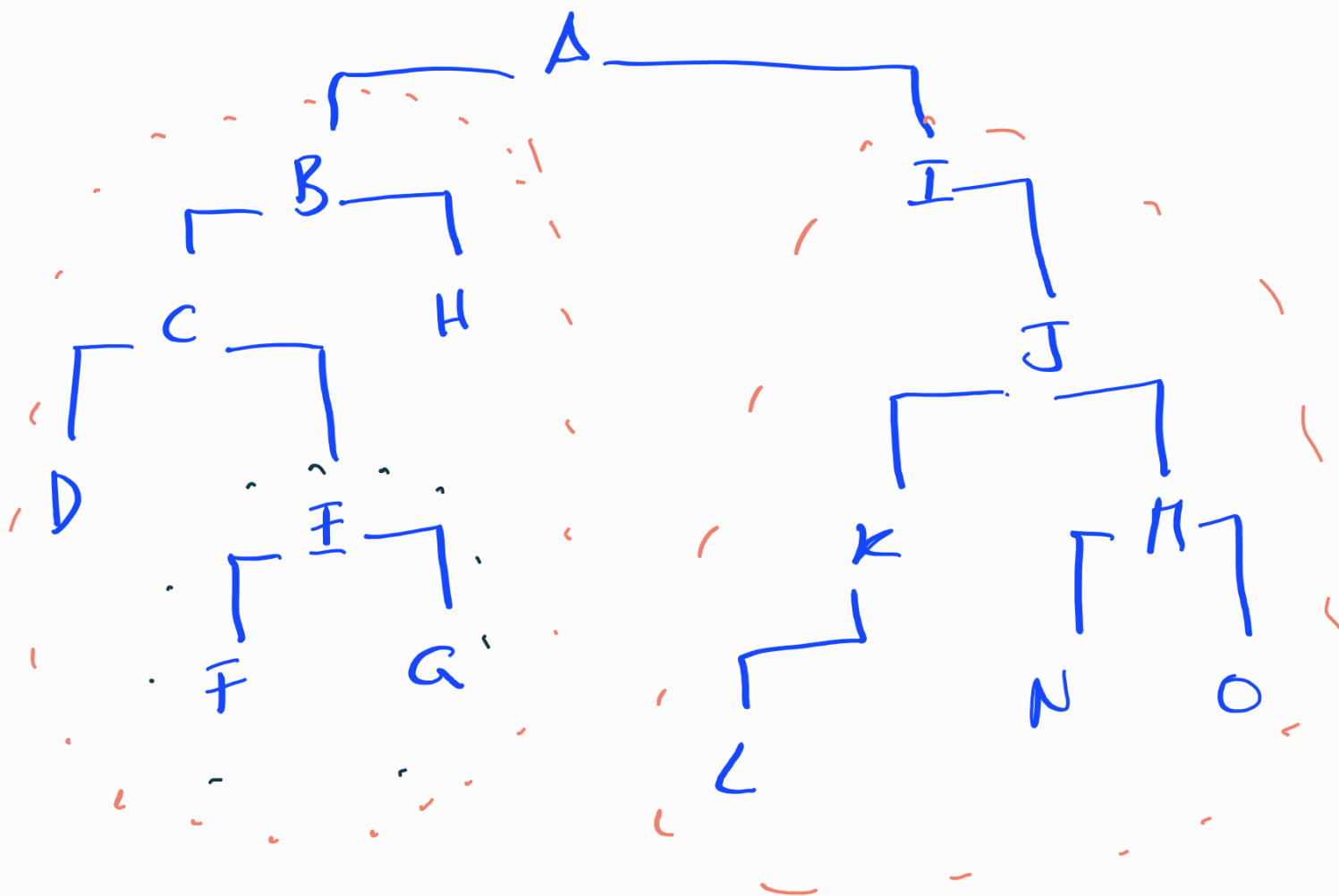1. left
2. root
3. right

post order:
1. left
2. right
3. root

C B D A F E H G I → pre-order

C D B F H I G E A → post-order

Tree diagram with nodes:
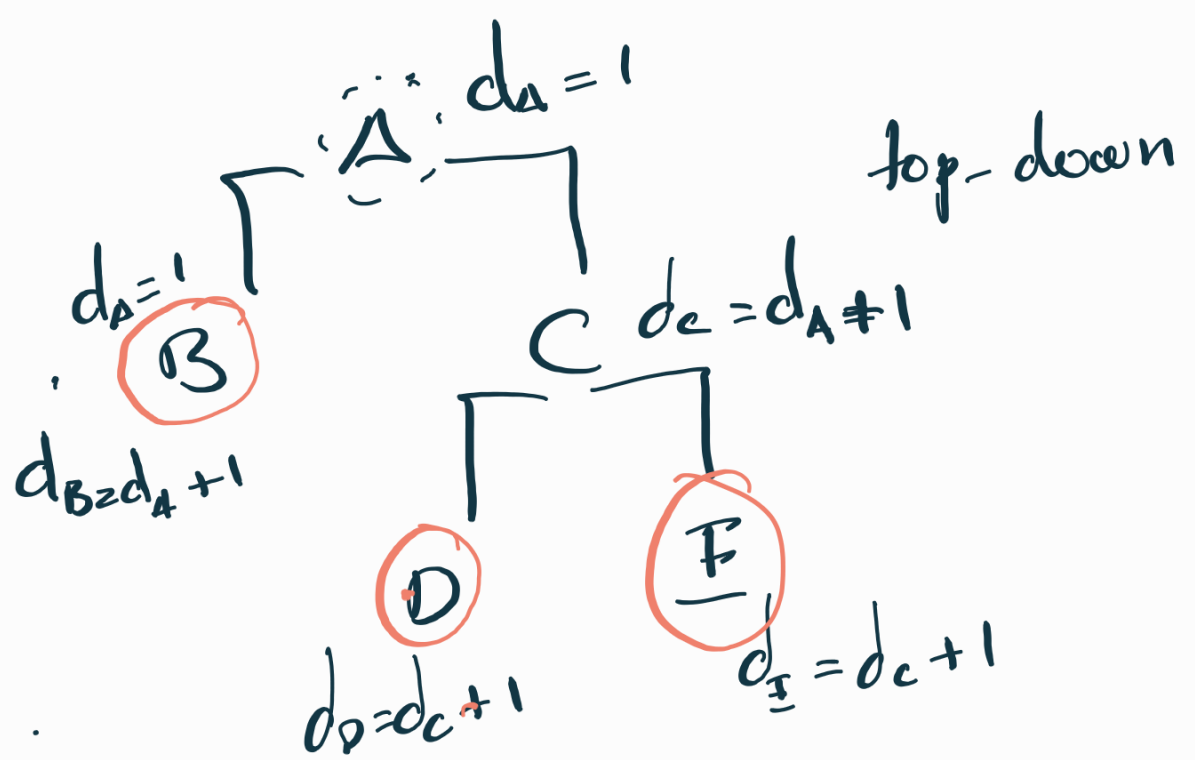- A (root)
  - B (left)
    - C
      - D
      - E
        - F
        - G
    - H
  - I (right)
    - J
      - K
        - L
      - M
        - N
        - O

D C F E G B H A I L K J N M O

<u>in</u>-order

A B C D E F G H I J R L M N O

pre-order

D F G E C H B L K N O M J I A

post-order

top-down

Tree diagram:
- A: $d_A = 1$
- B: $d_A = 1$, $d_B = d_A + 1$
- C: $d_C = d_A + 1$
- D: $d_D = d_C + 1$
- E: $d_E = d_C + 1$

A: $ans = 0$

B: $ans = \max(d_B, ans) = d_B$

D: $ans = \max(d_D, \underbrace{ans}_{d_B}) = d_D$

E: $ans = \max(d_E, \underbrace{ans}_{d_D}) \neq d_D$