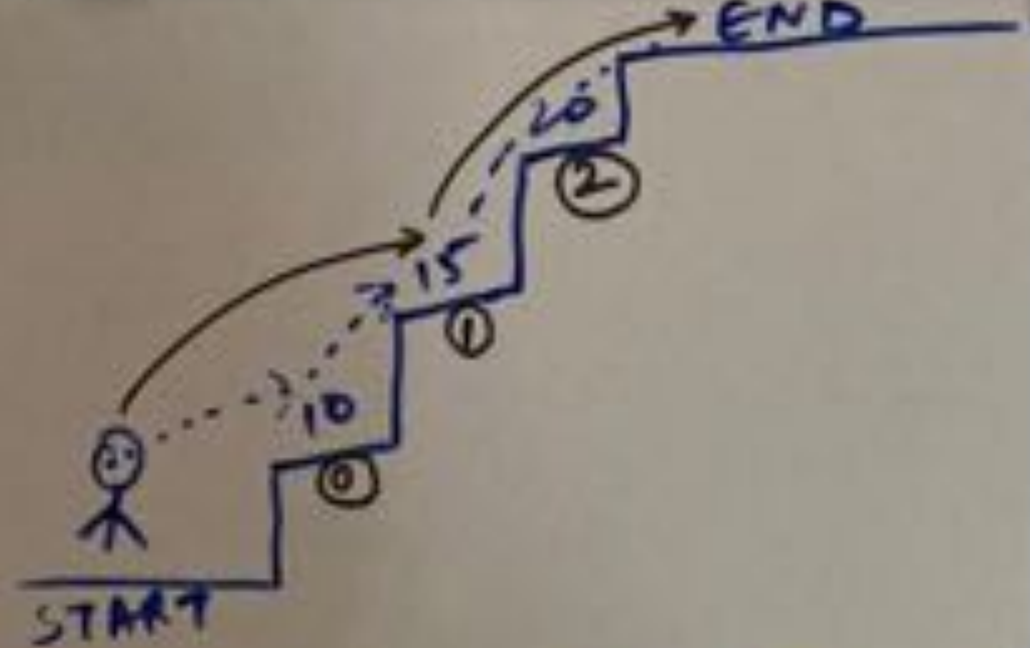


PATHS

1/S → 10 (0) → 15 (1) → 20 (2) → E = 45

2/S → 10 (0) → 20 (2) → E = 30

3/S → 15 (1) → 20 (2) → E = 35

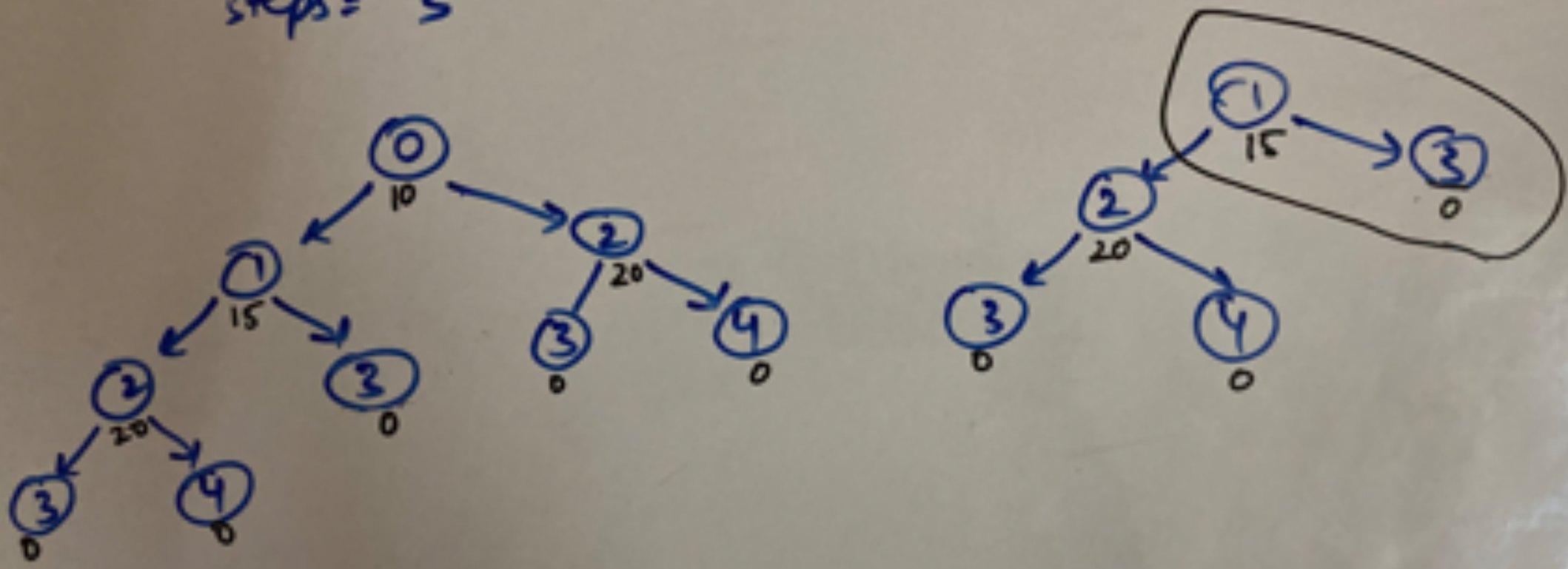
4/S → 15 (1) → E = 15 ✓

↓ Min of 4

Optimal path = 6 steps each cost 1

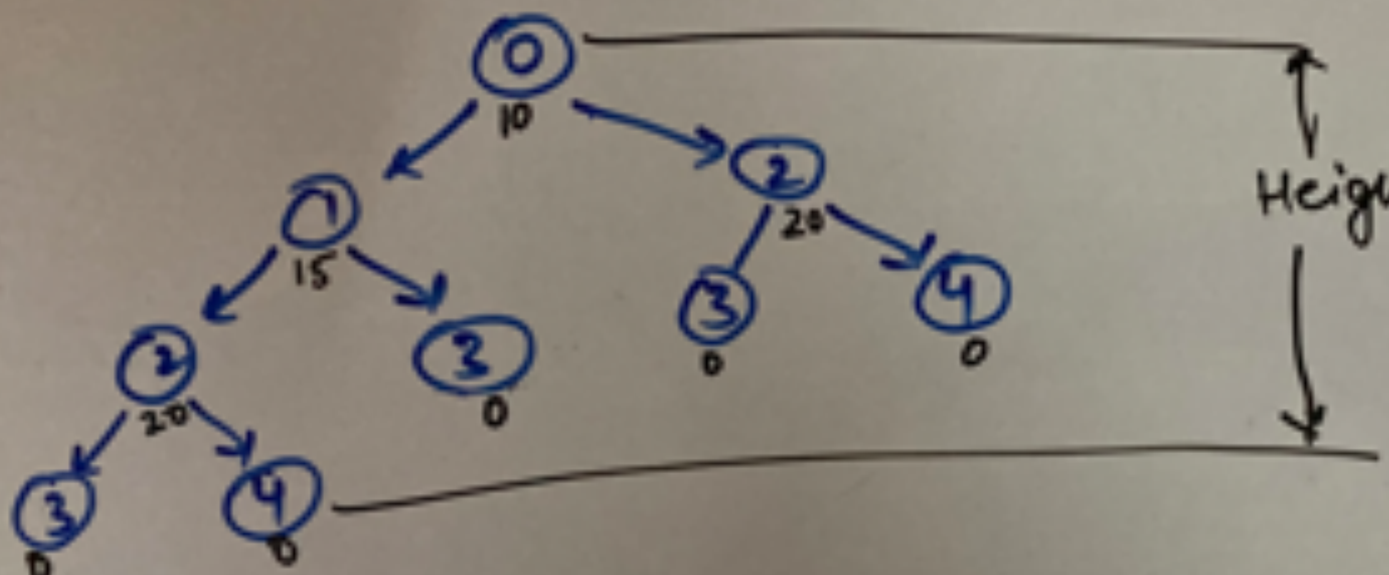
cost = [10, 15, 20] , ans = 15

steps = 3



cost = [10, 15, 20] , n = 15

steps = 3



Height = 3 [num of steps = n]

No of nodes in Binary tree

$= 2^h = \boxed{2^n}$

3 Approaches

1) Top down
   - Recursive + Memoization
   - O(N) Time and space

2) Bottom up - iterative
   - DP table
   - O(N) Time & space

3) Bottom up - optimized
   - O(N) Time
   - O(1) space.