

Strictly/Full Binary Tree :

- Binary tree in which each non-leaf node has exactly two child nodes.
- Strictly binary tree with n leaves always has $2n - 1$ nodes.

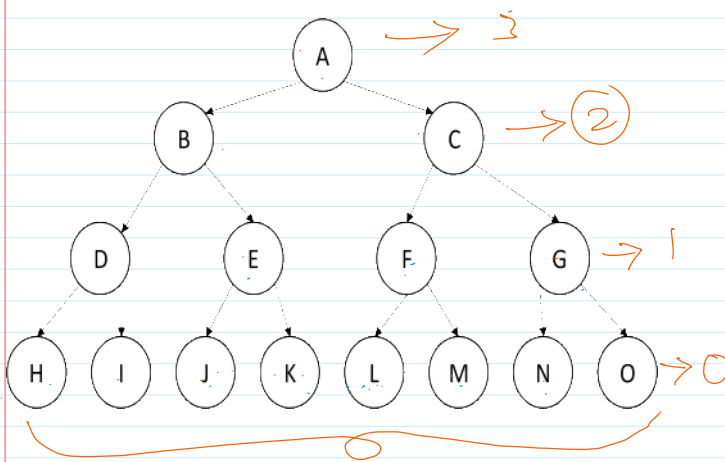
$$2 \times 6 - 1$$

Complete Binary Tree :

consider height of Empty tree = -1

- Complete binary tree of height h whose all leaves are at same level.

- Number of nodes = $2^{h+1} - 1$ *$2^{3+1} - 1 = 15$*
- Number of non-leaf nodes = $2^h - 1$ *$2^3 - 1 = 7$*
- Number of leaf nodes = 2^h *$2^3 = 8$*
- Number of non-leaf nodes is 1 less than leaf nodes



If height of empty tree is -1 the formula for no. of nodes :

$$2^{(h+1)} - 1$$

If height of empty tree is 0 the formula for no. of nodes :

$$2^h - 1$$