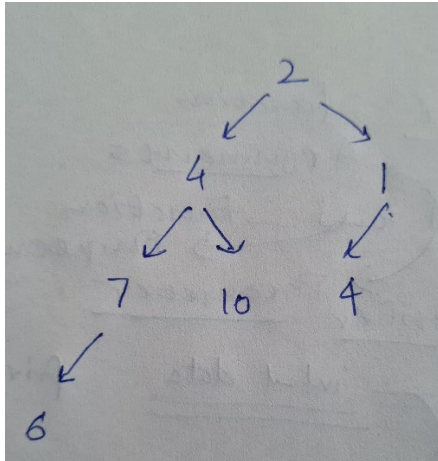


Methods of creating a binary tree:

Method 1: Array (Not used much usually)

- Stored simply as going from top to bottom and left to right
- Index 0 is assigned -1. We start filling from index 1
- If there is a node that does not have a child then we add -1



- Ans >> -1 2 4 1 7 10 4 -1 6
- Principles include:
 - Left children of a node at index i is at index $2i$
 - Right children of a node at index i is at index $2i + 1$
 - Parent of a node at index i is at index $i/2$

Method 2: By making a node struct & create-tree ()

- It keeps on asking for the left data until it encounters -1
- See code for more clarity

What is the level of a tree?

- Level starts from root to (0->1->2 ->) to max level.
- Max number of nodes at level i is equal to 2^i

What is the height of a tree?

- Height starts from root to (1->2->3->) so on max height.
- Max number of nodes in a tree of height i is $2^i - 1$