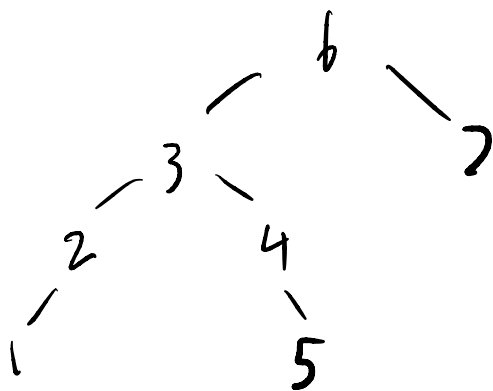


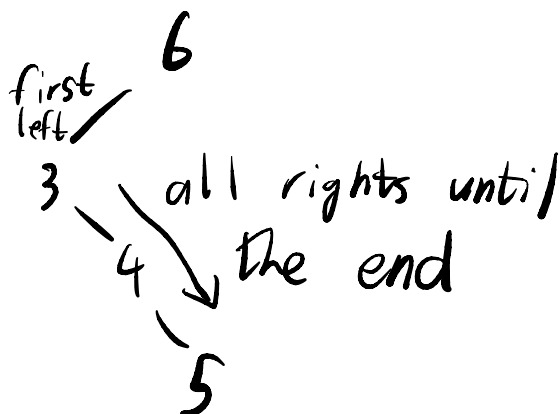
### Ex. 37

Consider the following BST:



Say we want to find the successor of 5. We go up-left until the first right which is our successor. The reason is as follows:

If  $b$  is the successor of 5, 5 is the predecessor of  $b$ . To find the predecessor of  $b$ , we need the largest value smaller than it, so we descend into the left subtree and then go down-right until we can't anymore. (more detailed explanation in Ex. 38).



Therefore we do the opposite of this to get from 5 to 6. We keep going up-left, undoing all the down-rights, until we get to our first up-right, undoing our original down-left, getting to the successor.

