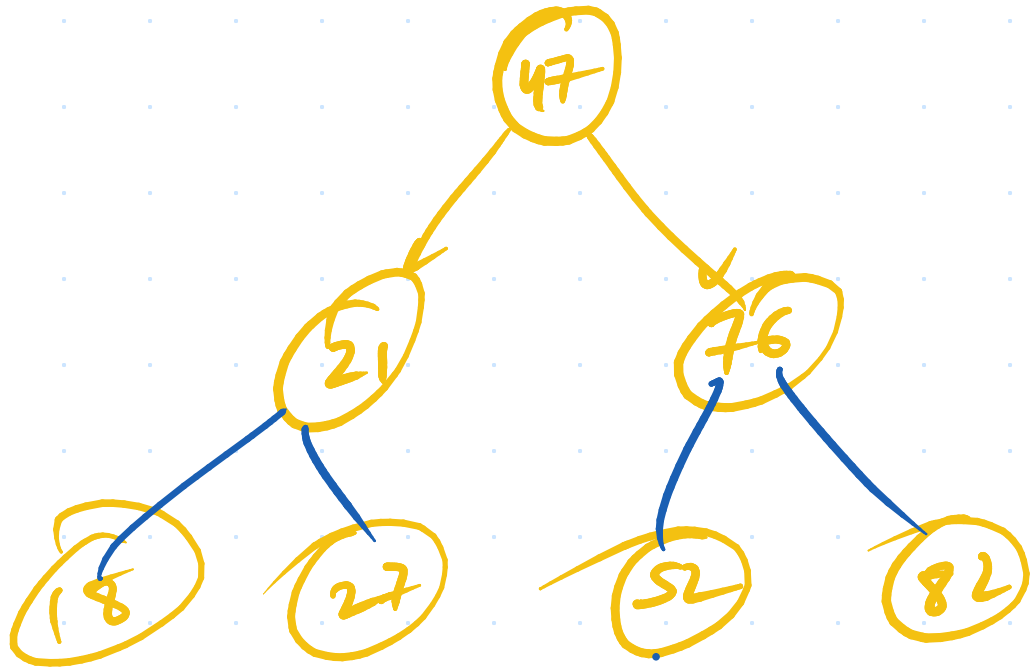
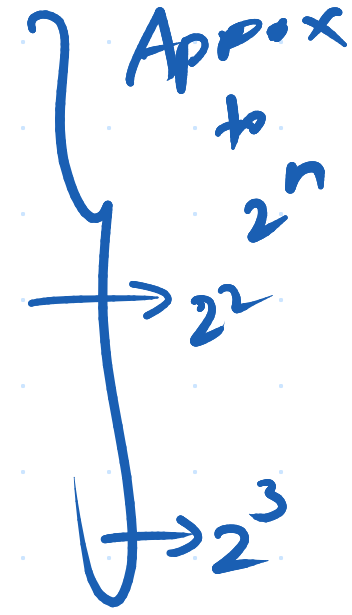
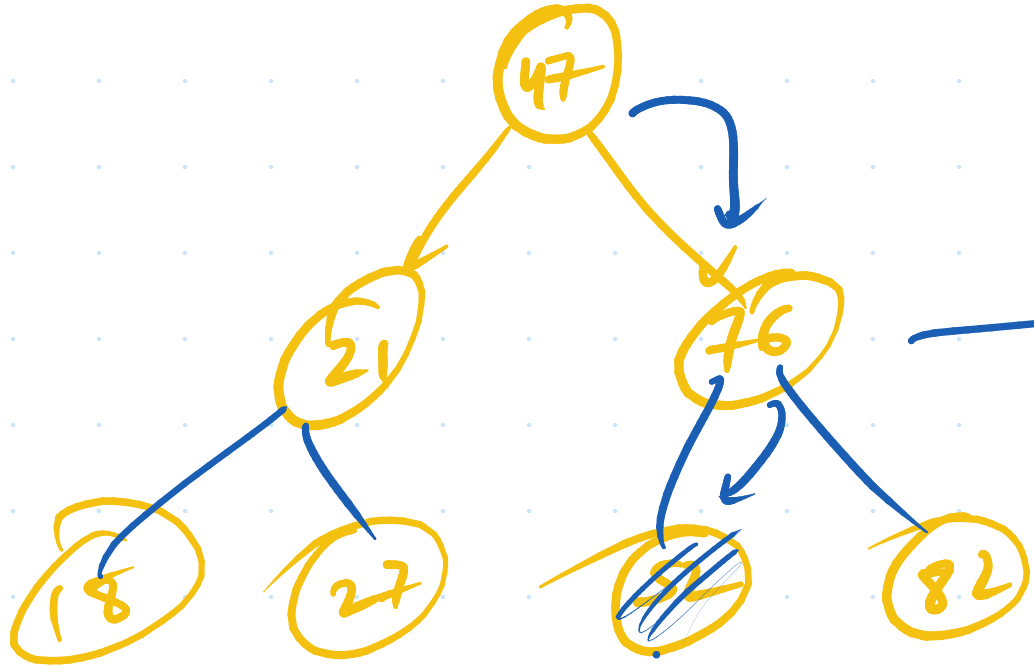


$2^1 - 1$

$2^2 - 1$

$2^3 - 1$



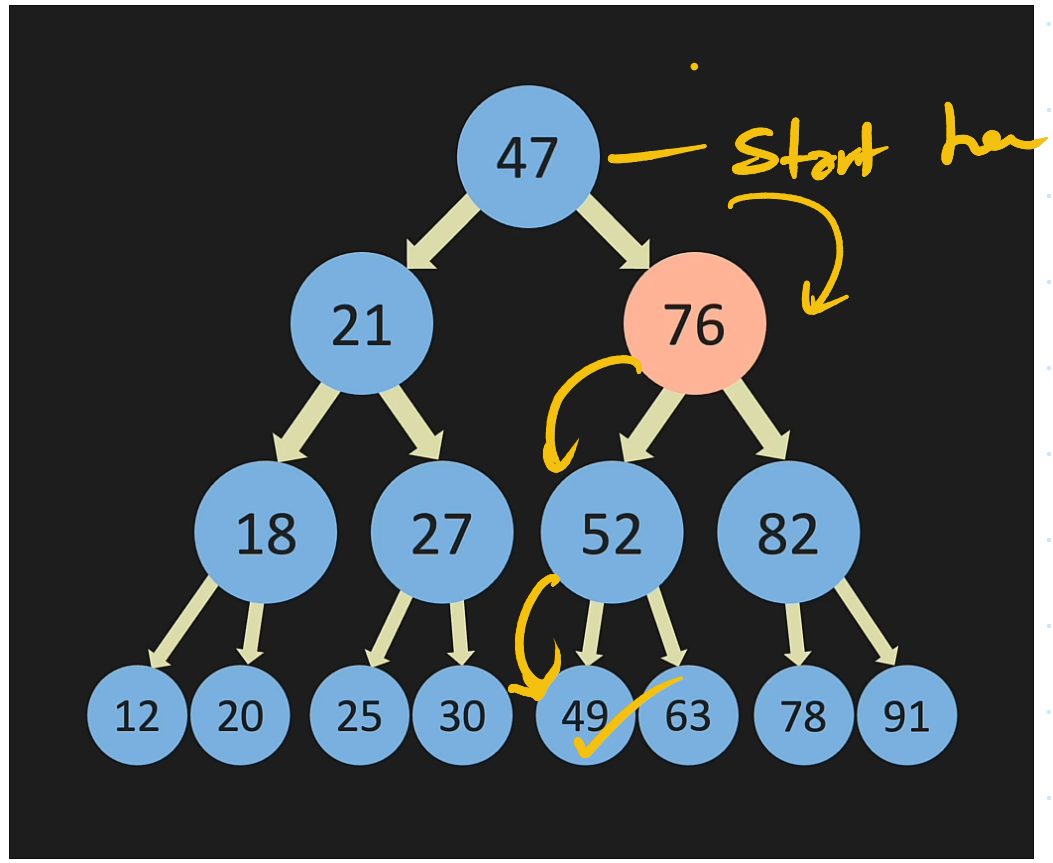


finding take 2^2 nodes.

— 2^3 steps to find something

Searching for `49

using Divide & Conquer



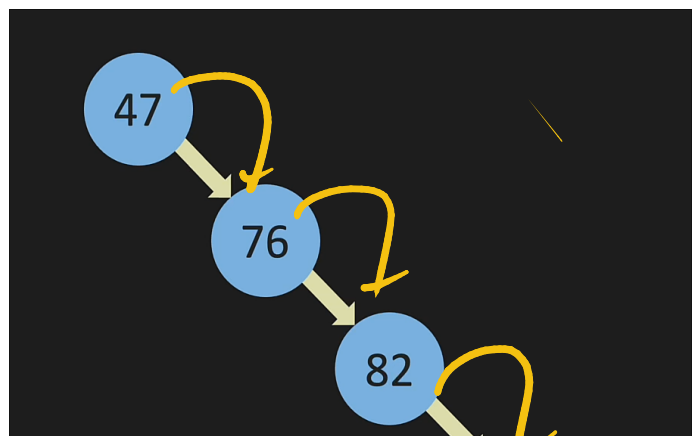
49 > 47

49 < 76

49 < 52

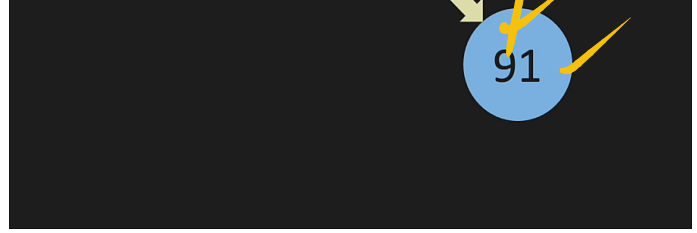
Complexity = O(log n)

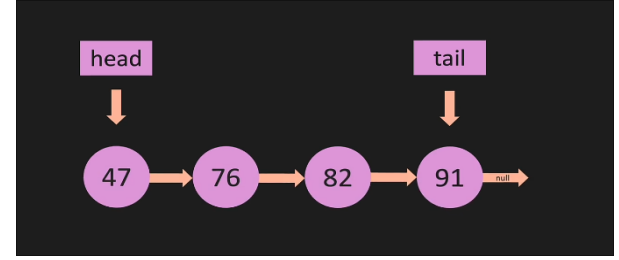
Worst Case: when tree is never forked.



Searching for 91

It's essentially a Linked List





O(n)

By 0 of BST is O(n)

```
lookup()
insert()
remove()

O(log n)
```

Linked List

Binary Search Tree.