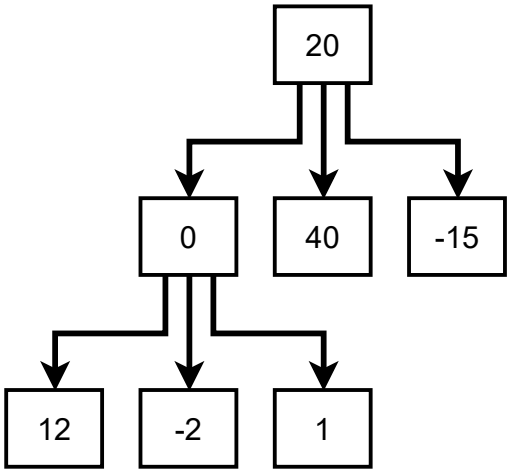
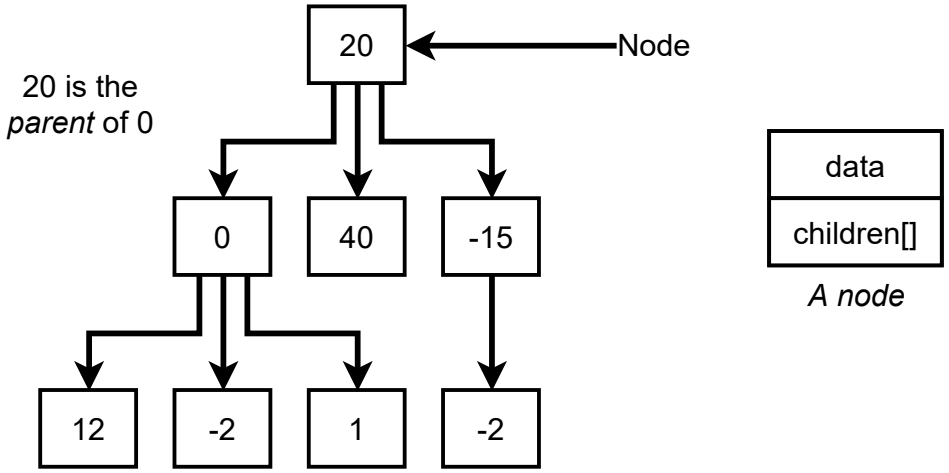
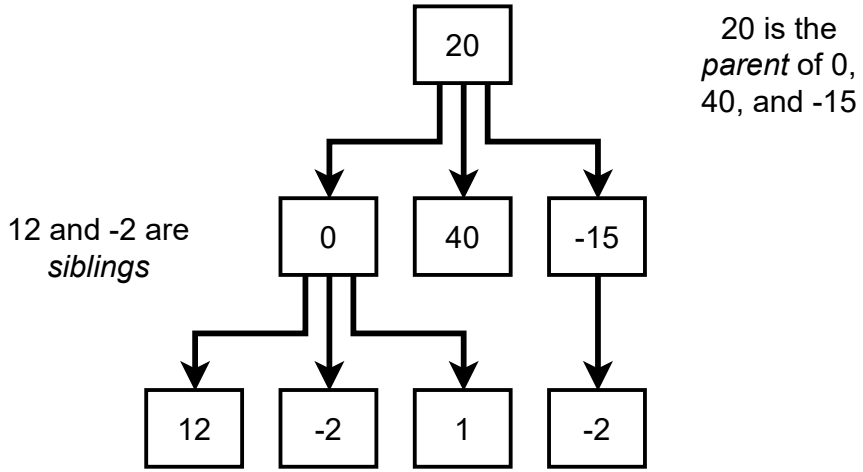
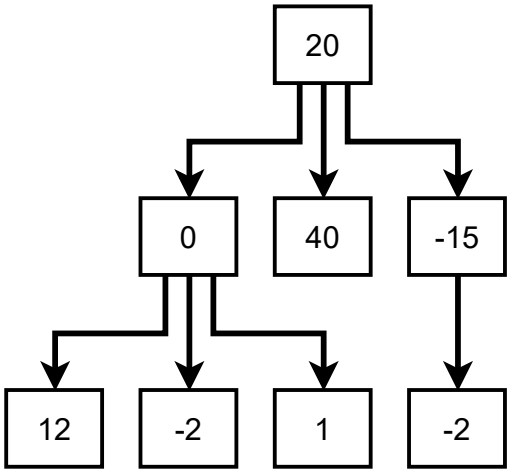

20
0
40
-15
12
-2
1

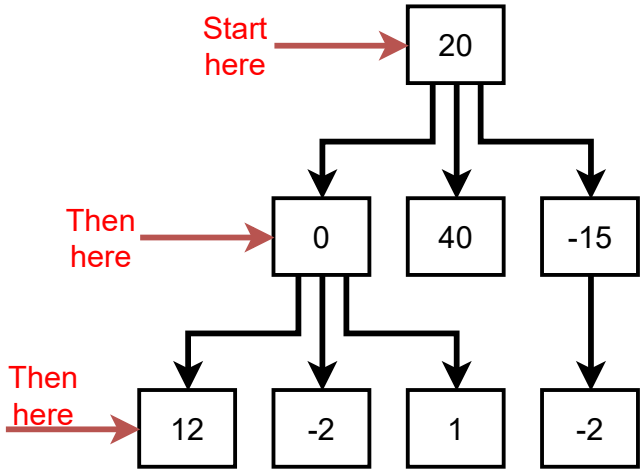

20
Node
20 is the
parent of 0
0
40
-15
12
-2
1
-2
data
children[]
A node


20
0
40
-15
12
-2
1
-2
20 is the *parent* of 0, 40, and -15
12 and -2 are *siblings*

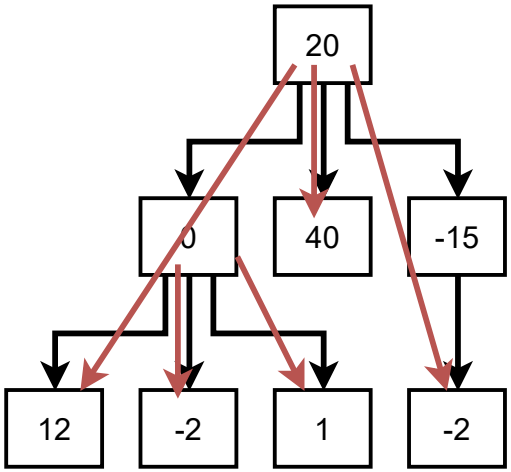


Iterating through a tree = traversal

There are different orders of traversal

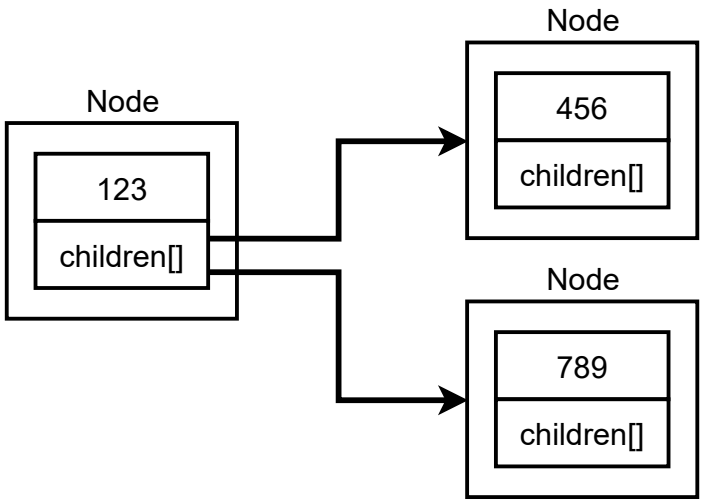


Breadth-First Traversal

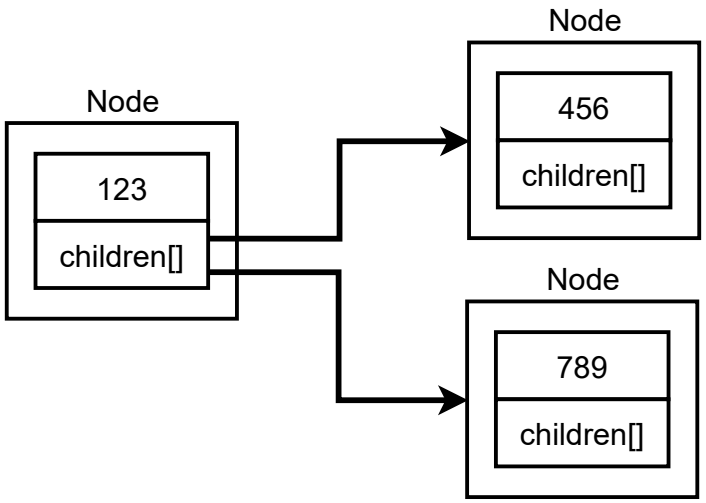


Depth-First
Traversal

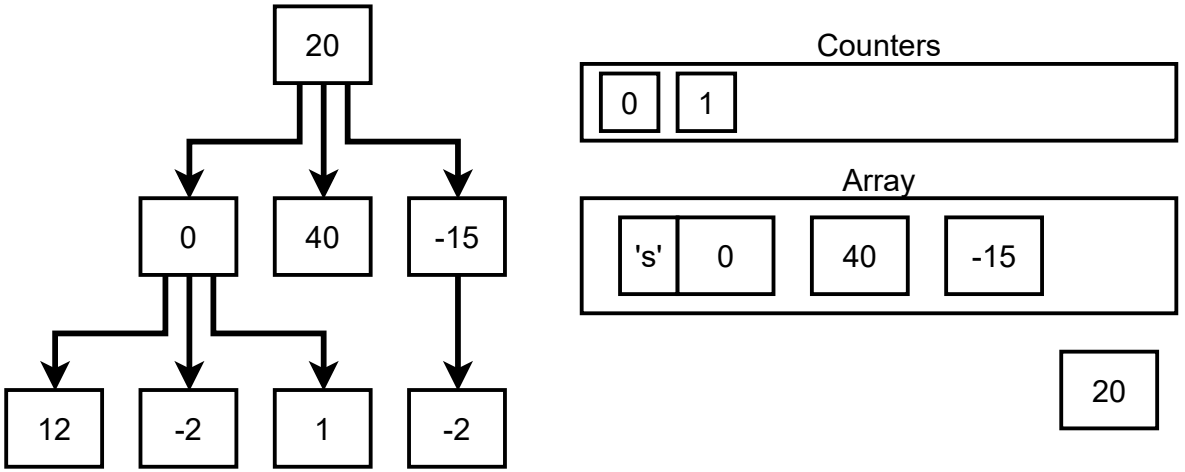
20, 0, 12, -2, 1, 40, -15, -2

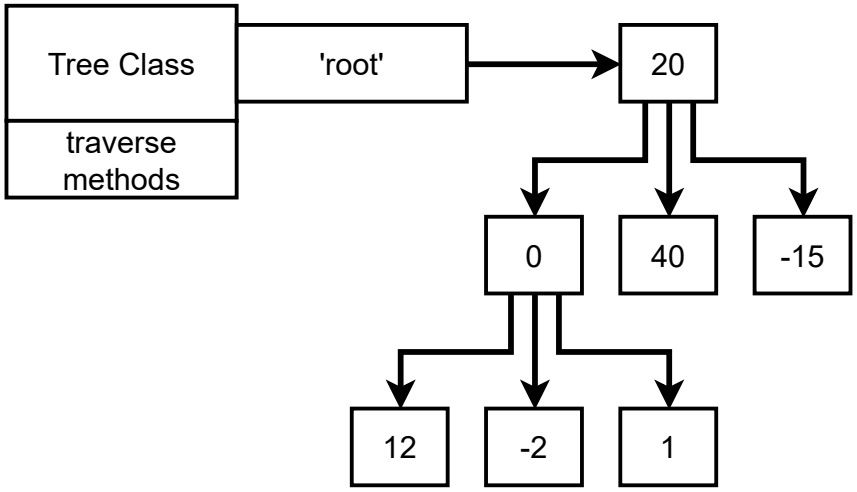


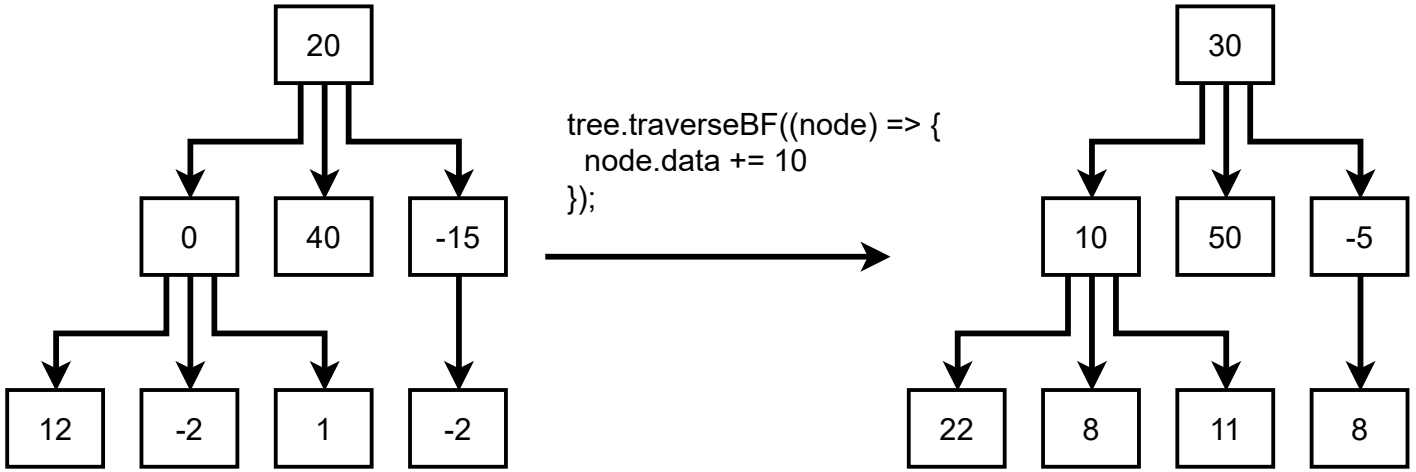
add(data)
Given some data, create a new node and add it to the current node's 'children' array

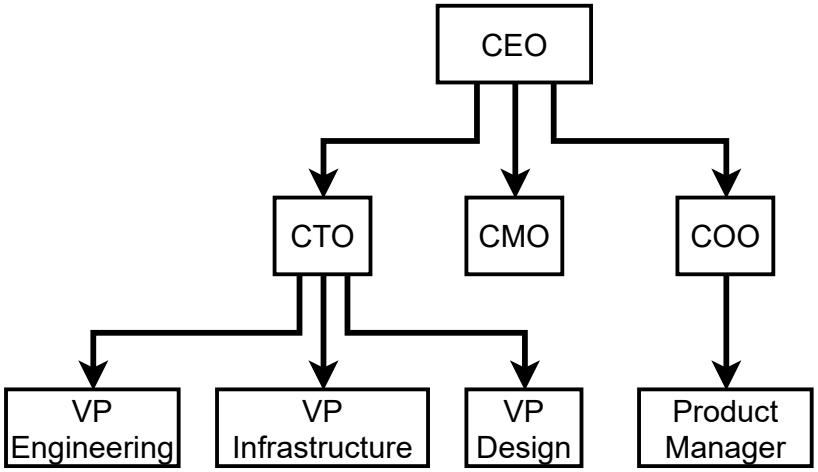


remove(data)
Given some data, look at each child of the current node and remove any node with data === data


20
0
40
-15
12
-2
1
-2
Counters
0
1
Array
's'
0
40
-15
20

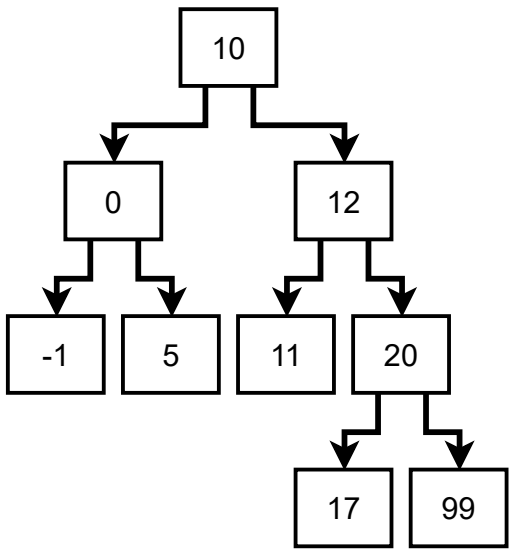

Tree Class
traverse methods
'root'
20
0
40
-15
12
-2
1

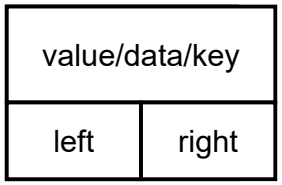

20
0
40
-15
12
-2
1
-2
tree.traverseBF((node) => {
node.data += 10
});
30
10
50
-5
22
8
11
8



CEO, CTO, CMO, COO, VP Engineering, VP Infrastructure, VP Design, Product Manager

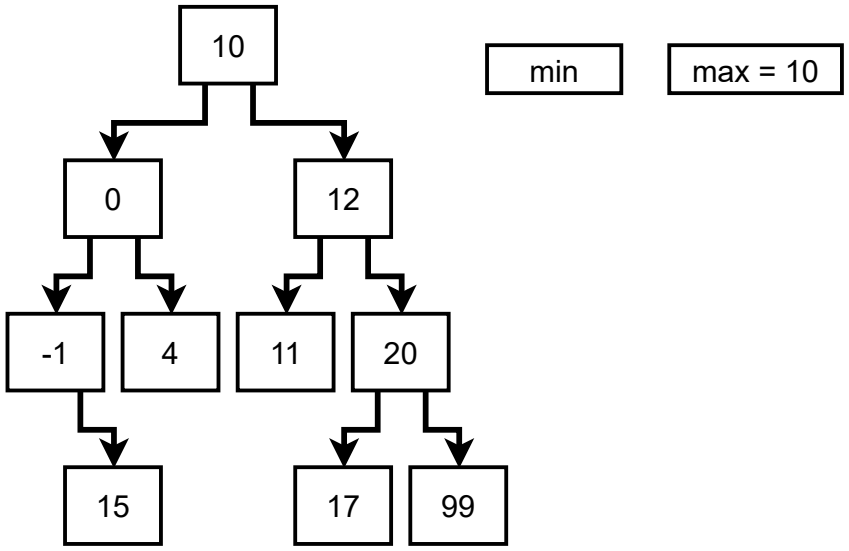
Binary Search Tree

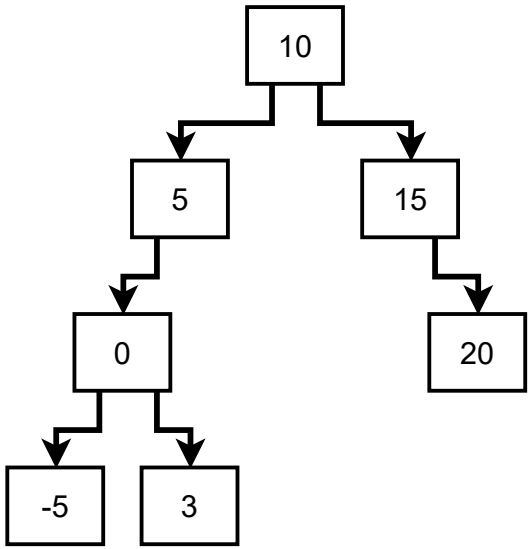




value > left.value

value < right.value


10
min
max = 10
0
12
-1
4
11
20
15
17
99



Does this tree contain value '3'?