

BST Search Logic

bool Search (value) – Searches tree for a given value, returns true if found, false otherwise.

Method: Start at the root, keep going down the tree, following the left or right path based on key values until found. Each time we go down a level, we effectively cut the tree in half, leading to $O(\log_2 n)$ efficiency.

```
if root is null
    error – empty tree
else
    found = false
    current = root
    while (current != null and ! found)
        if (current's value = value to search for)
            found = true
        else if (current's value > value to search for)
            current = current's Lchild
        else
            current = current's Rchild
        endif
    end while
endif
return found
```