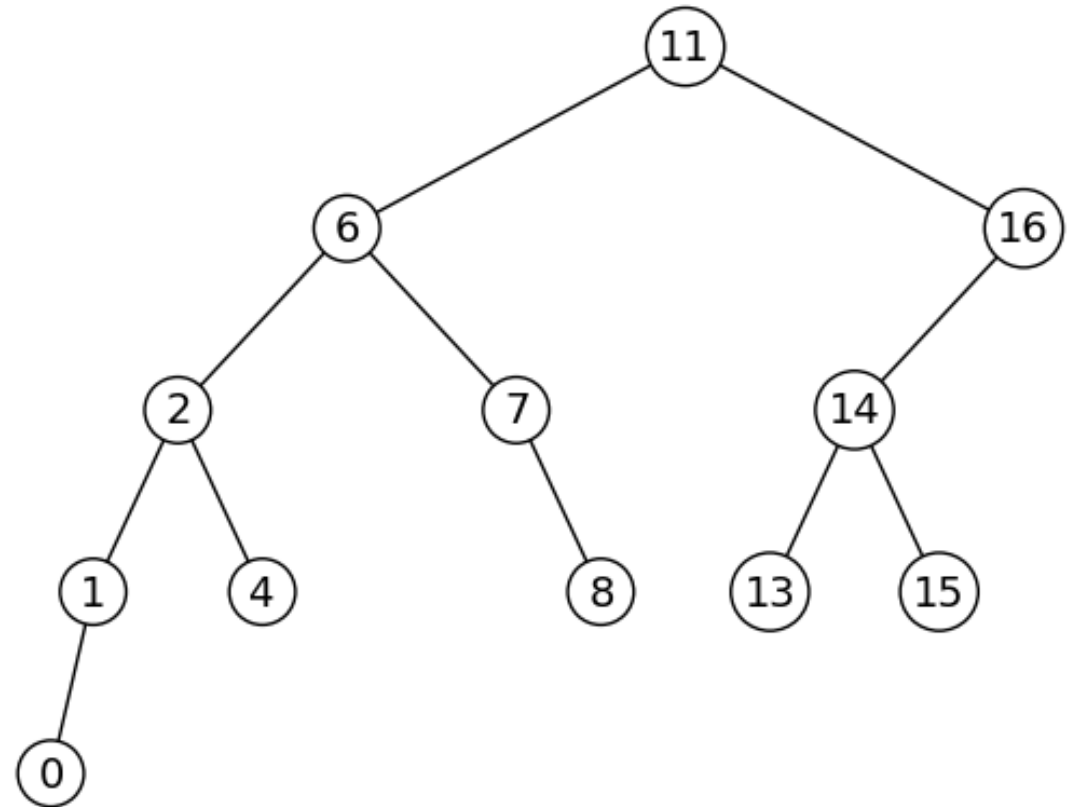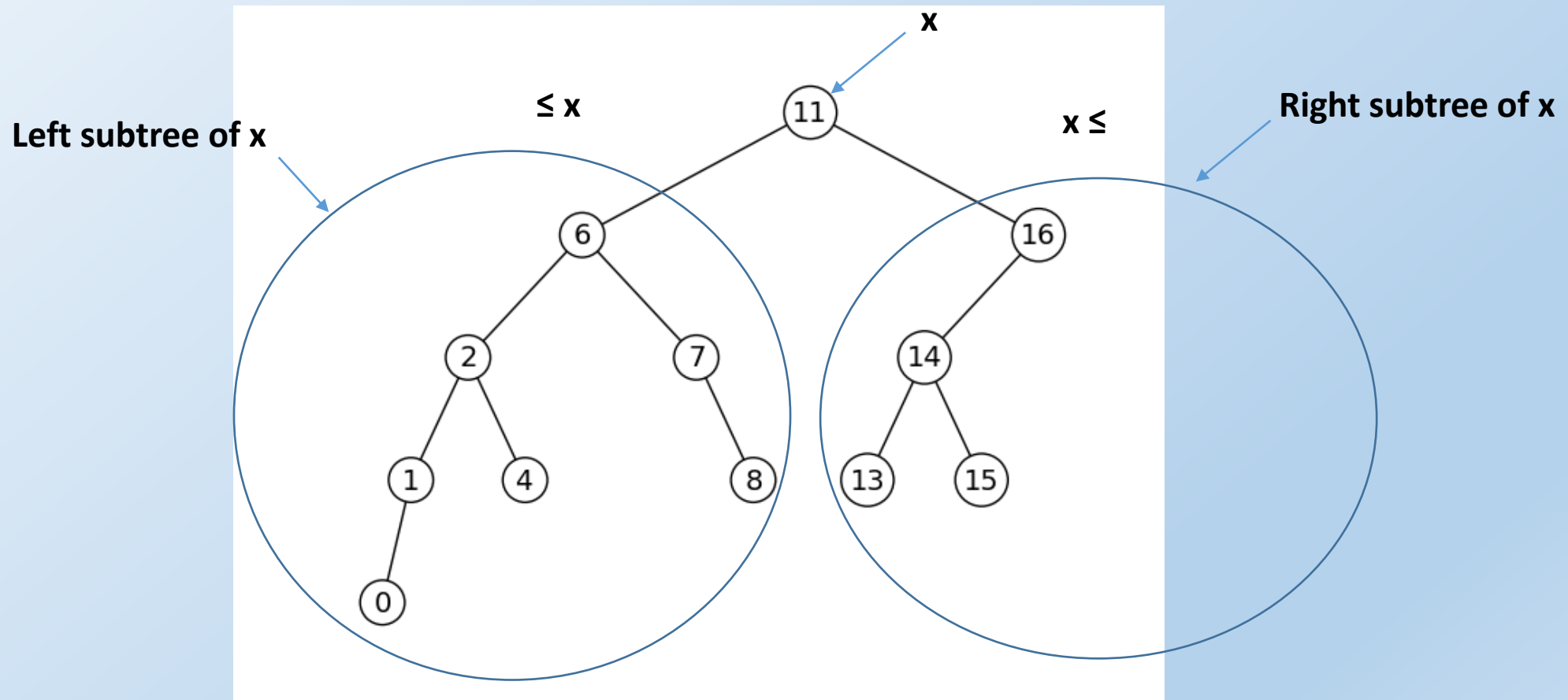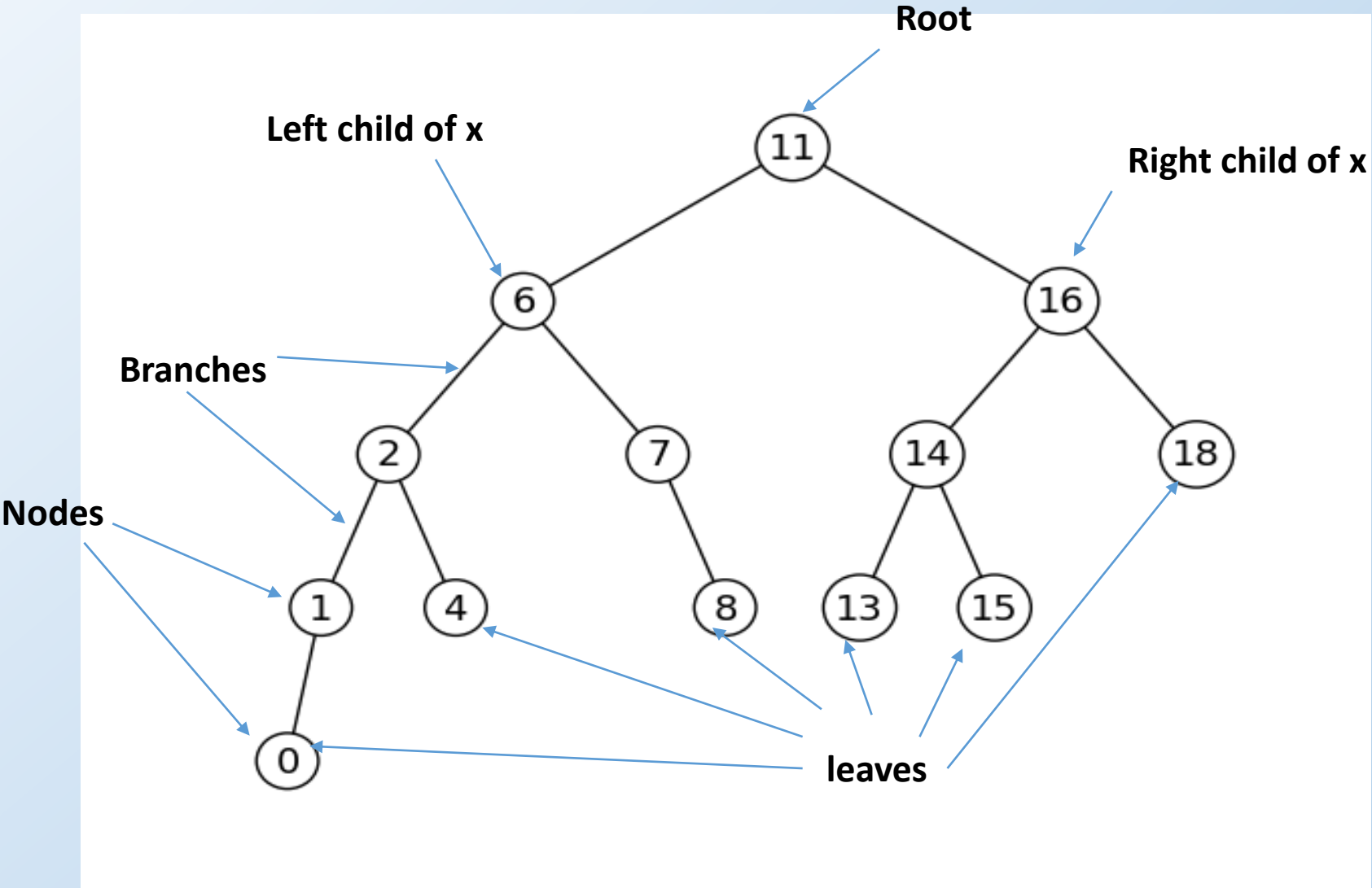# Binary Search Trees

Definitions:

A binary search tree is a rooted tree where the following property applies to every node x:

Every item stored in the left subtree of x is less or equal to the item stored in x

Every item stored in the right subtree of x is greater or equal to the item stored in x
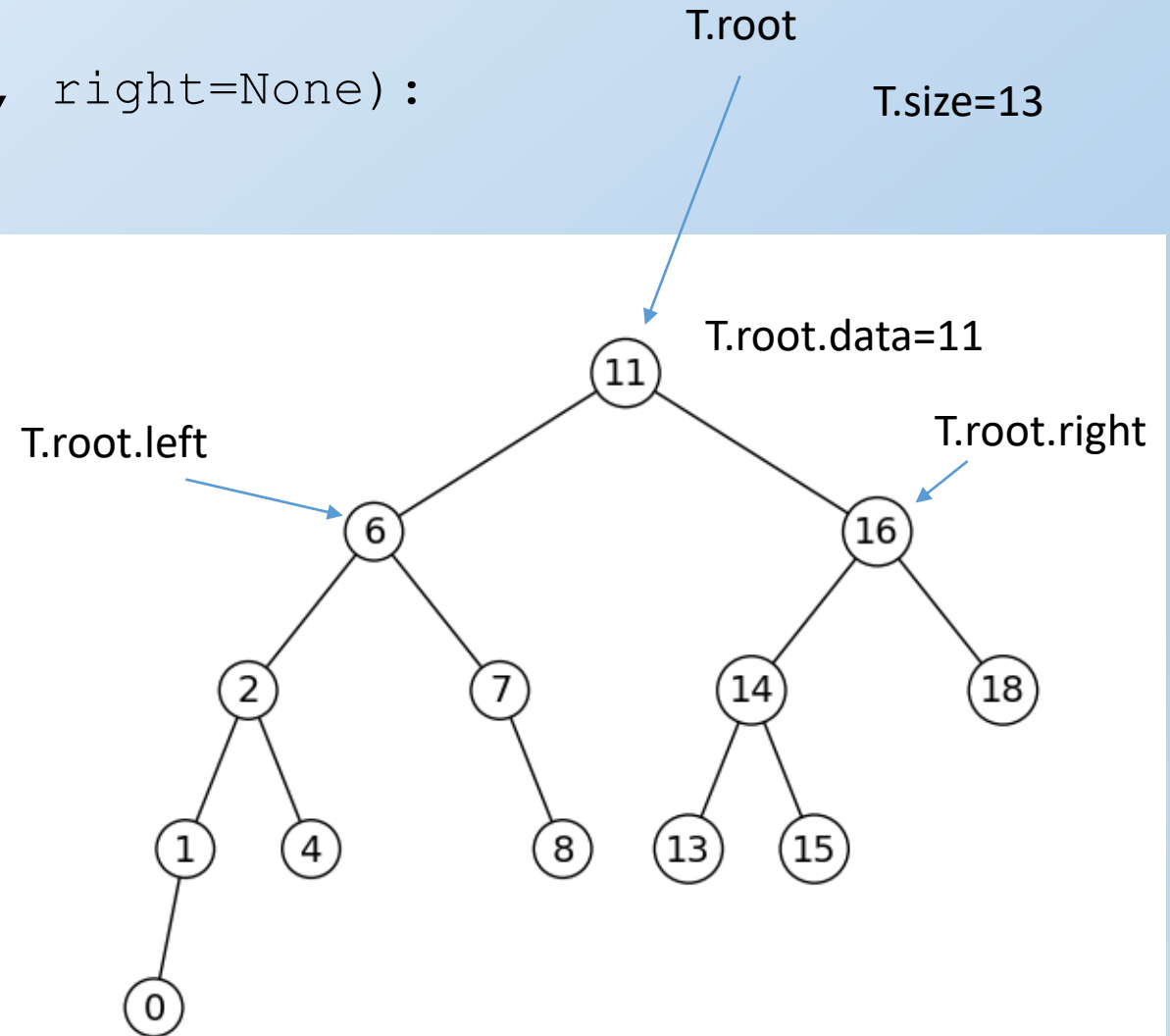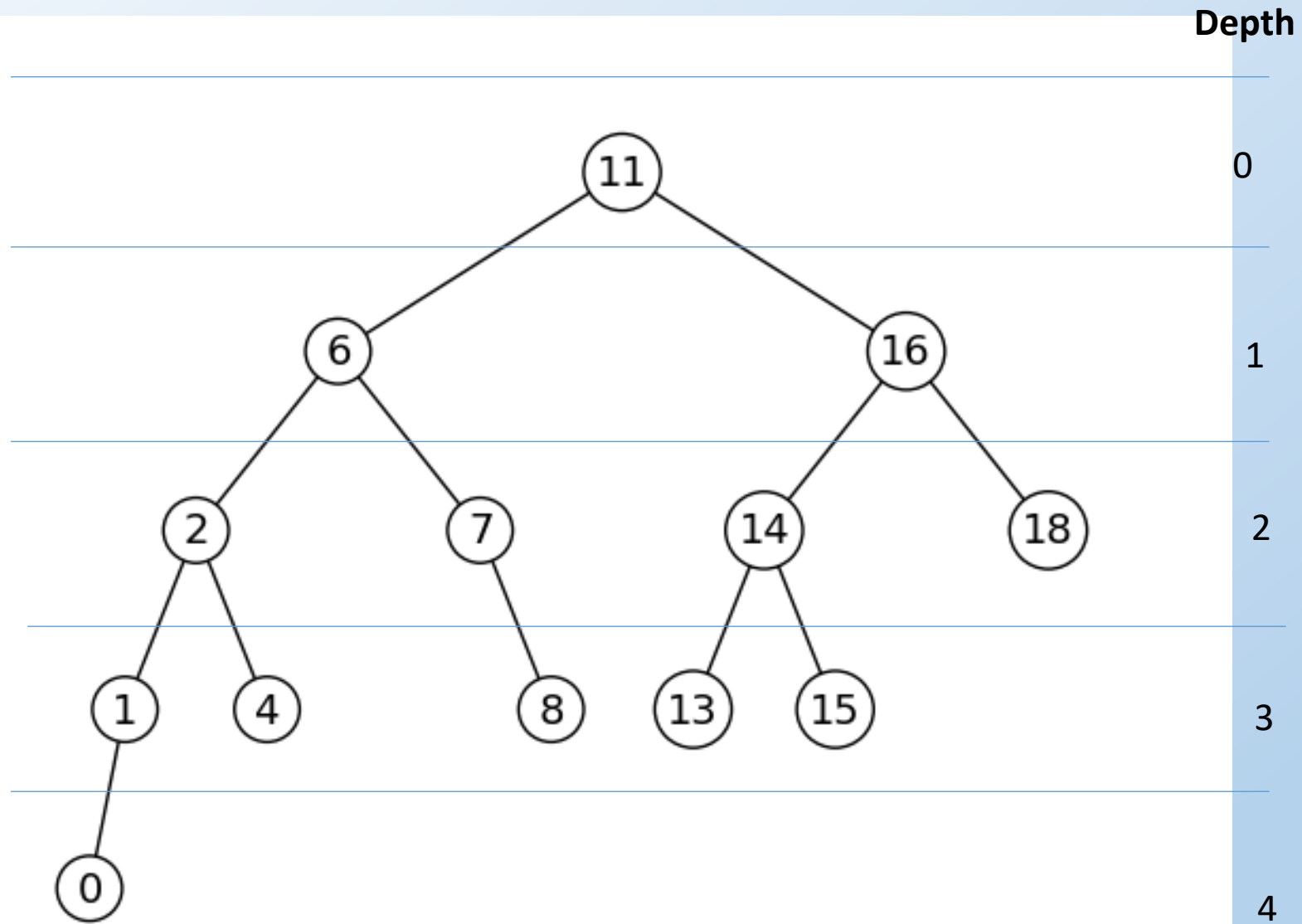
Definitions:

```
class BSTNode:
    # Constructor
    def __init__(self, data,  left=None, right=None):
        self.data = data
        self.left = left
        self.right = right
class BST:
    # Constructor
    def __init__(self):
        self.root = None
        self.size = 0
```

T.root

T.size=13

T.root.data=11

T.root.left

T.root.right

Depth

0

1

2

3

4

The **height** of the tree is the depth of the deepest node in the tree (4 in this example)