Kerry Ojakian's CSI 32 Class

Class Assignment #9

General Instructions:

- You may work in a group of at most 3 students.
- Classwork must be put in a your dropbox folder; if there are multiple parts, create a single folder for the class assignment. Make sure you give clear names to your files and folders. Make sure that you indicate all the people in your group.
- When you are done, *email me* to tell me who's folder the class work is in; also, tell me who is in your group. Without this email, you may not get credit for the assignment!

The Assignment

Modify the `member` method from our `Binary Tree` class so that it returns the level of the item if it is in the tree, where we count the root as being at level 1, and each successive level as being 1 greater. If the element is not in the tree, it should return -1 (or `None`). For example, if we create the class `BinTree` and have methods `addChild` and `member`, the following code will print out: $2, -1, 3$

```
B = BinTree(10)
B.addChild(5)
B.addChild(20)
B.addChild(2)
B.addChild(12)
B.addChild(25)

print(B.member(20))
print(B.member(15))
print(B.member(25))
```