

# CS 284: Quiz 8 – Fall 2020

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Note both these methods are to be added to the `BTree` class.

## Exercise 1

Implement a method `public void prune(int level)` that prunes the recipient at level `level`. If `level` is negative, then it should throw an illegal argument exception. Consider the tree:

```
BTree<Integer> t1 = new BTree<>(4);  
2 BTree<Integer> t2 = new BTree<>(33, new BTree<>(24), new BTree<>(44));  
BTree<Integer> t = new BTree<>(12, t1, t2);
```

Then `prune(0)` produces the empty tree `null`. Also, `prune(1)` will produce:

```
12  
--null  
--null
```

Also, `prune(2)` will produce:

```
12  
--4  
----null  
----null  
--33  
----null  
----null
```

## Exercise 2

Implement a method `public boolean isomorphic(BTree<E> t2)`, that belongs to the class `BTree`, that returns true if the recipient tree (i.e. the one that receives the message) and the argument tree are *isomorphic*. Two binary trees are isomorphic if one can be obtained from the other by a series of flips of the left and right children. For example, the following trees are isomorphic:

