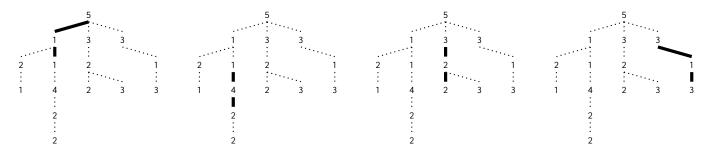
## 9. (8 points) Temmie Flakes (It's just torn up pieces of construction paper.)

Implement count\_ways, which takes a tree t and an integer total and returns the number of ways any top-to-bottom sequence of consecutive nodes can sum to total. Shown below with bolded edges are the four ways counted during count\_ways(t1, 7). The tree data abstraction is on the previous page.



def count\_ways(t, total):

"""Return the number of ways that any sequence of consecutive nodes in a root-to-leaf path can sum to total.

```
>>> t1 = tree(5, [tree(1, [tree(2, [tree(1)]),
                      tree(1, [tree(4, [tree(2, [tree(2)])])])]),
               tree(3, [tree(2, [tree(2),
                              tree(3)])]),
                                                            5
               tree(3, [tree(1, [tree(3)])])])
>>> count_ways(t1, 7)
                                                            3
                                                     1
>>> count_ways(t1, 4)
                                             2
                                                            2
                                                                           1
>>> t2 = tree(2, [tree(-10, [tree(12)]),
               tree(1, [tree(1),
                      tree(-1, [tree(2)])])
                                                            2
                                                                          3
                                                     4
>>> count_ways(t2, 2)
                                                     2
>>> count_ways(t2, 4)
3
11 11 11
                                                     2
def paths(_____):
   ways = 0
   ways += sum(______
```

\_\_\_\_\_\_

return ways

return