

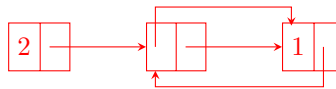
Quiz 6

Brian Hou

October 15, 2015

1. Draw the box-and-pointer diagram for the `Link 1` after the following code is executed.

```
>>> l = Link(0)
>>> for e in range(1, 3):
...     l = Link(e, Link(1, 1))
>>> l.rest.rest.rest = l.rest
```



2. Write a function `all_paths` that takes in a `Tree` and returns a list of paths from the root to leaves. Each path is represented as a `Link`.

```
def all_paths(tree):  
  
    if tree.is_leaf():  
        return [Link(tree.entry)]  
    result = []  
    for branch in tree.children:  
        result += [Link(tree.entry, path)  
                  for path in all_paths(branch)]  
    return result
```