

6 Lost in Pointers

(16 Points)

Vanessa has implemented a circular `DLList` class, and has created a circular `DLList` (as seen on the reference sheet). However, Dylan the Hacker has gotten into her system and changed one of the `next` or `prev` pointers to point to another node in the `DLList` (or the sentinel). Write a function `fixDLList` that fixes the changed pointer in the instance of the `DLList` to be the original correct `DLList`.

You may assume that this function is defined in `DLList`, and therefore has access to the private variables of `DLList`.

```
public void fixDLList() {
    int count = 0;
    for (Node n = _____; _____ && n != sentinel; _____) {
        _____;
    }

    if (count == size) { // The wrong pointer is a .prev pointer
        sentinel.next.prev = _____;

        for (_____; _____; _____) {
            _____ = _____;
        }
    } else { // The wrong pointer is a .next pointer
        sentinel.prev.next = _____;

        for (_____; _____; _____) {
            _____ = _____;
        }
    }
}
```