A class you’ll use
Throughout these exercises you will deal with code that uses this class:

```java
public class ListNode {
    public Object data;
    public ListNode link;
    public ListNode (Object o) {
        data = o;
    }
}
```

Your exercises
1. Do the online homework on linked data structures.
2. Complete the picture below of the pointless little piece of linked structure that this code builds (no pun intended!):

```java
ListNode front = new ListNode("a");
ListNode other = new ListNode("c");
ListNode third = new ListNode("d");
front.link = other;
other.link = third;
other= new ListNode("b");
third.link = other;
other.link = front.link;
```

![Diagram of linked list structure](attachment://linked_list_diagram.png)
3. Trace the following method on some examples to see what it does. Then answer the questions below.

```java
public static Object huh (ListNode front) {
    ListNode slow = front;
    ListNode fast = front;
    while (fast != null) {
        fast = fast.link;
        fast = fast.link;
        slow = slow.link;
    }
    return slow.data;
}
```

Write an appropriate comment specifying what this method returns.

Write appropriate preconditions for this method. If I satisfy your preconditions when I call the method, it should not crash and it should give me the answer you just promised.

4. Complete the method below.

```java
// Returns the number of occurrences of any object that equals o
// in the linked list whose first element is referred to by front.
// Preconditions: front refers to the first node in a linked list
//   containing zero or more nodes.
public static int countOccurrences (ListNode front, Object o) {
```