

**University of Washington, Tacoma**  
**Institute of Technology**  
**305 Programming Assessment Exam - SOLUTION KEY**

1. D
2. B
3. C
4. D
5. C
6. E
7. B
8. A
9. E
10. Tiger 1 Animal 2  
Tiger 2  
Mammal 3 Tiger 2  
Animal 4

Animal 1  
Animal 2  
Animal 3  
Animal 4

Animal 1  
Animal 2  
Mammal 3 Animal 2  
Animal4

Mammal4  
Mammal4

P1.

```
public int countDuplicates(ListNode head) {
    int count = 0;
    ListNode prev = head;

    while (head.getNext() != null) {
        head = head.getNext();
        if (head.getData().equals(prev.getData())) {
            count++;
        }
        prev = head;
    }

    return count;
}
```

P2.

```
public void writeChars(int n) {
    if (n <= 1) {
        System.out.print("*");
    } else if (n == 2) {
        System.out.print("**");
    } else {
        System.out.print("<");
        writeChars(n - 2);
        System.out.print(">");
    }
}
```