

Week 3 Exercise

1.

- a) Temp will point to the **2nd node** as it is the first node where `info == x (2)`
- b) Temp will point to the **3rd node** as it is the first node where `info == x (2)` – because this is the first node with the value, the loop will exit before reaching the next node (which would also satisfy the postcondition invariant)
- c) Temp will point to the **2nd node** as it is the first node where `info == x (2)` – because this is the first node with the value, the loop will exit before reaching the 4th node (which would also satisfy the postcondition invariant)

2.

- a) If the loop ends with `temp == null`, the invariant tells us that value we are searching for does not exist within the linked list
- b) If the loop ends with `temp != null`, the invariant tells us that we have found a node with the value we are searching for, and the loop has escaped. The invariant does not tell us how many times the value occurred, just that it occurs at all in the linked list.