Lab 6

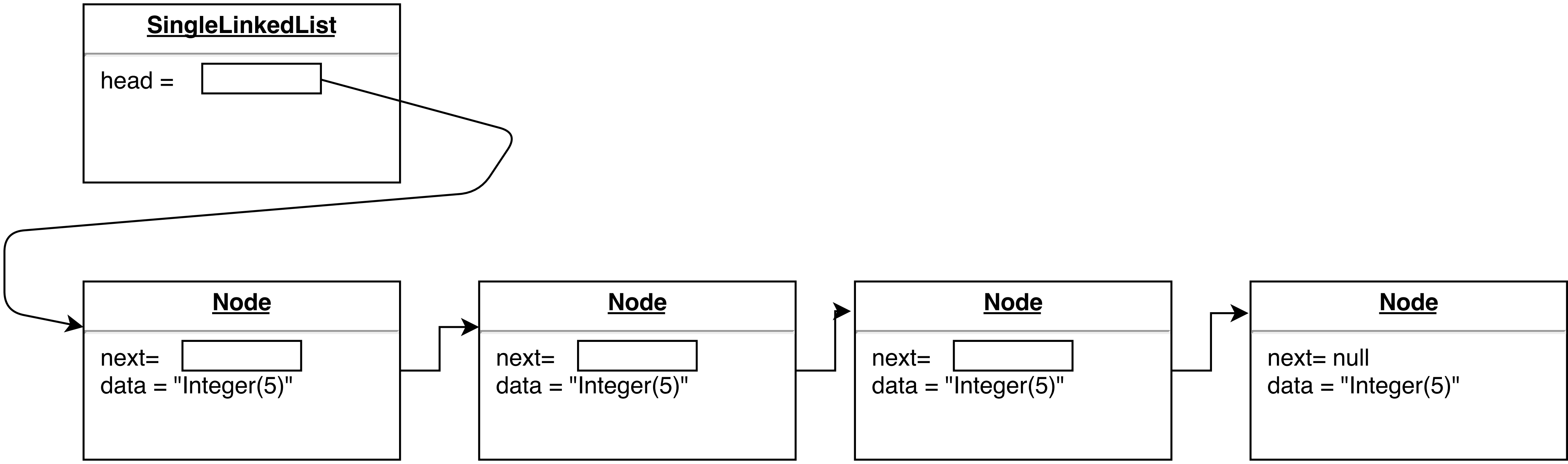
1)What is the big-O for the single-linked list get operation?
O(N)

2)What is the Big -O for the set operation? (Single-linked list)
O(N)

3)What is the big-O for each add method?
add(E anEntry) - O(N)
add (int index, E anEntry) - O(N)

4) Draw a single-linked list of Integer objects containing the integers 5, 10, 7, and 30 and referenced by a head. Complete the following fragment, which adds all Integer objects in a list. Your fragment should walk down the list, adding all integer values of sum.

```
int sum = 0;
Node<Integer> nodeRef = _____head_________;
while(nodeRef != null){
     int next = ______nodeRef.data_____________;
    sum += next;
    nodeRef = ________nodeRef.next___________;
}
```



5)
A) this adds a new first node to the linked list, sets head to reference the new node, and sets the new nodes "next" to the old first node.

B) this sets nodeRef to the second node in the list, then it sets nodeRefs "next" to the 4th node in the list

C) This sets nodeRef to the first node in the list, traverses the list until it reaches the last node in the list, then sets the lasts node to reference a new node with data "tamika". This essentially adds a new node to the end of the list.

D)This sets nodeRef to the first node in the list, , then traverses through the list until it either reaches the end or finds a node with the data "Harry". if it reaches the end, the statement is over. if it finds a "harry", it will change that nodes data to "Sally" then add and link a new node after "Sally" called "Harry" and link that node to the next node. this essentially adds a "Sally" before a "Harry" if a "Harry" exists.