Analysis of add method form IntArrayBag class

Let n = manyItems

This method has 3 parts

* On lines 1-7 the method has 5 operations
* On lines 8 -9 the method has a for loop which contains 4n operations
* On lines 10 – 16 the method contains 3 operations

This method contains 4n + 8 operations

The Big O is: O(n)

Analysis of countOccurrences method from IntArrayBag class

Let n = manyItems

This method has 3 parts

* On lines 1 - 6 the method has 3 operations
* On lines 7 – 9 the method has a for loop which contains 5n operations
* On lines 10 – 11 the method has 1 operaion

This method contains 5n + 4 operations

The Big O is: O(n)

Analysis of the listPosition method from IntNode class

Let n = position

This method has 3 parts

* On lines 1 – 9 the method has 6 operations
* On lines 10 – 12 the method contains a for loop with 6n operations
* On lines 13 – 14 the method has 1 operation

This method contains 6n + 7 operations

The Big O is: O(n)

Analysis of listLength method in IntNode class

Let n = cursor

This method has 3 parts

* On lines 1 – 5 the method contains 2 operation
* On lines 6 – 8 the method contains a for loop that has 4n operations
* On line 9 – 10 the method contains 1 operation

This method contains 4n + 3 operations

The Big O is: O(n)