

Mystery #1: mysterySort1 method

- While analyzing this method I noticed it is similar to Insertion Sort.
- For the for loop, it can be said to be n because it runs through the list n times
- the next line of code is constant thus 1.
- In the while loop, we can conclude that we need at most $n-2$ to compare and $n-2$ to swap when dealing with the second to the last element and $n-1$ to compare and swap when dealing with the last element
- Therefore, the algorithm is $n(n-1)$ which is quadratic and can also be simplified to n^2
- Thus, the time complexity is $O(n^2)$

Mystery #2: mysterySort1 method