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Project 1 Commentary

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The time complexity for all the methods is  $O(n)$ , because each method has a while loop within the function. Linked lists is a good data structure to use when building a line editor because it is an easy way to store the data from the line editor in order, making it easy to insert new entries and print out the results in order. The advantages for using a linked list in a line editor is that it is easy to insert new and delete entries at any point in the list. It is also easy to edit an entry by changing the value variable to something new. Disadvantages are that it takes longer to traverse the list, as opposed to using an array because you can not quickly go to a specific index in a list. While doing this assignment, I solidified my knowledge in linked lists and parsing strings in C++. If I were to do the project over again, I could have created a separate method that loops through the linked list and returns the correct node that needs to be deleted, edited, or inserted.