Exercise 10: SLL Operator Overloading

For this exercise, you may work with another student. If you do so, write **both names in the header**, but turn in **two copies** of the project, one with your name on the folder and the other with the other student's name on the folder.

Due Date:

- **MW class:** Wednesday, October 7th, at the beginning of class.
- **TTh class:** Thursday, October 8th, at the beginning of class.

Folder name: A250_E10_YourLastName_YourFirstName

The project **sll_overloaded_operators** contains a **Main.cpp** file with all the testing cases and the **AnyList** class. Your job is to *declare* and *define* the functions below:

- Overloaded ostream **operator <<** as a **friend** function
  - **Parameter:** A reference to an object of the class **ostream**, the object of the **AnyList** class that needs to be printed.
  - Prints out the list starting from the first node.
  - If the list is empty, output the error message, "List is empty."

- Overloaded comparison **operator ==** as a **member** function
  - **Parameter:** A list of the **AnyList** class that will be compared to the calling object.
  - Compares the calling object to a list passed as a parameter. Returns true if the lists have the same number of elements in the same order, false otherwise.
  - Make your function **efficient**:
    - Check if the number of nodes in both lists is the same (there is no reason to start a loop and compare if the lists have different number of elements).

IMPORTANT:

- Do **not** add any additional member variables to the classes
- Do **not** modify any code segment already in the file

EXPECTED OUTPUT

```
TEST: Ostream operator <<

        List1 is: 4 3 2 1
        List2 is: 8 7 6 1
        List3 is: 1 8 7 6
        List4 is: 9 7 8 6
        List5 is: 3 2 1
        List6 is: 9 7 8 6


TEST: Comparison operator ==

        List1 != List2
        List1 != List3
        List4 != List4
        List1 != List5
        List3 == List3
        List4 == List6

Press any key to continue . . .
```