The LinkedList class given in Section 16.1, pages 724 – 727 implements a singly-linked list and a ListIterator interface. You are to make and test the following modifications to this code:

1. Add an instance variable `last` that points to the last Node in the list.

2. Modify the Node class to include a `previous` instance variable.

3. Modify all methods necessary to properly implement the List as a doubly-linked list.

4. Add methods `getLast(), removeLast(), addLast(...)`. 

5. Exercise P16.6, page 752 of your textbook.


Turn in a printed copy of your source code and sample execution output that shows tests of all added functionality.