

## CS140 Homework 3 [10 pts]

Due 11.10am Tuesday January 29, 2019

### Problem 1

See `list_handout.pdf` for the class definition and implementation of a double linked list. Rewrite the `findnode(int index)` function to perform a forward search in the first half of the list if  $\text{index} < N/2$  and a backward search in the second half of the list otherwise. The result should be that no more than  $N/2$  nodes will be visited as part of a search.

Hint: Sketch what you are trying to accomplish on a piece of paper before you think about the code.