Homework Assignment #6
Due: February 27, 11:30 a.m.

1. Design an algorithm that merges k sorted singly-linked lists into a single sorted singly-linked list in $O(n \log k)$ time, where n is the total number of elements in all of the lists.

You do not have to provide a full, formal proof of correctness, but you should explain why your algorithm is correct, and this explanation should include pre- and post-conditions for any routines, and loop invariants for any loop. You should also explain why the running time of your algorithm is $O(n \log k)$.