1. D  
   pointer operations refers to changing the tail pointers of list nodes only. Does not count traversing the list
2. B  
   Refer to lecture notes
3. B  
   N/2 + N/4 + N/8 + … = 2N
4. E  
   In the second for loop, because the condition is s.size() which changes every iteration of the loop, not all elements are enqueued.
5. E  
   A. Nonsense  
   B. removeLast is O(n) in singly linked list  
   C. refer to tutorial  
   D. refer to tutorial
6. C  
   “Swapping” refers to shifting (poor English on the setter’s part).
7. A  
   (15, 16) -> (7, 8) -> (3, 4) -> (1, 2) -> (0, 1)
8. E  
   C. <https://www.geeksforgeeks.org/queue-using-stacks/>

D. <https://www.geeksforgeeks.org/implement-stack-using-queue/>

1. D  
   Refer to lecture notes
2. E  
   for n >= 1000, always constant, therefore O(1)
3. DivisibleBySeven.java\*
4. SortStack.java\*
5. BinaryFind.java\*  
   \*My own solutions. May not be perfect.
6. Insertion sort/Improved Bubble sort with flag  
   Idea is to reduce unnecessary sorting if its already sorted.  
   For example, quicksort is O(n2) when already sorted