SET 4

Theme: linked representations

1. LinkedList: linear / recursive implementation (pseudocode)
    a) search
    b) removeAll

2. Priority Queue
   By default: max priority queue
    a) Discuss Element Priority choices
    b) i)Representation: sorted singly linked list
       ii) operations: pseudocode
    c) i) Representation: (not sorted) singly linked list
       ii) operations: pseudocode

3. Polynomials

in a single indeterminate with Integer Coefficients
Arithmetic of polynomials

    a) Monomial: representation
    b) Polynomial: representation dynamic, singly linked, list of monomials
       (not sorted, only non-zero monomial)
    c) Sum of monomial and polynomial: poly <- poly + mon
    d) Sum of polynomials: P <- P + Q
    e) Product of monomial and polynomial: poly <- poly * mon
    f) Product of polynomials: P <- P * Q
    g) The derivative of the polynomial

4. Set
    a) ADT
    b) representation: doubly linked list
    c) operations: pseudocode

5. Conversion operations:

(pseudocode based on representation)

    a) DLList to a DynVector
    b) Sorted DynVector to Sorted SLList
    c) SLList to SortedSLList
    d) DLList to SortedDLList
    e) convert a linked list into a circular linked list.