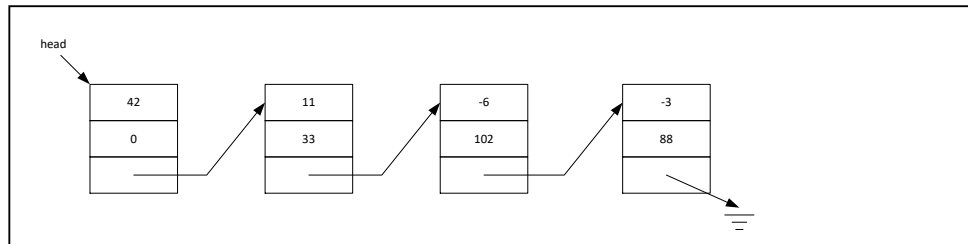CSE 283 Homework #2 (30 points)

Due: 11:59pm, February 3 (Friday)

Develop a program for sparse vector operations.  Notice that in a sparse vector, majority of elements will be zero, and it is usually implemented using the structure of a linked list.  The following diagram shows a vector of 4 nonzero elements with value 42 at position 0, 11 at position 33, -6 at position 102, and -3 at position 88.



Your program needs to:

  (1)  Input sparse vectors
  (2)  Create sparse vectors according to inputs
  (3)  Allow adding elements of existing sparse vectors
  (4)  Print all elements of a vector
  (5)  Overloading operators for + and * (note that we use the symbol + for addition, and * for inner product).