15.
    a) In chain.h
    b) The time complexity is above listSize/2, the reason being that when you access/delete a chainNode that isn't the firstNode you need to traverse the node chain until you find the right node. The space complexity is listSize/2 * size of an int, this is because a temporary integer is made.
    c) Check hw3a.cpp

16.
    a) In chain.h
    b) The time complexity is above listSize/2, the reason being that when you access/delete a chainNode that isn't the firstNode you need to traverse the node chain until you find the right node. The space complexity is a bit bigger than Q15 because you create a new chainNode rather than reuse the chainNode. You do, however, delete the unused chainNode.
    c) Check hw3a.cpp

18.
    a) In chain.h
    b) The code only iterates linearly with the number of chainNodes the input chains have.
    c) Check hw3a.cpp

22.
    Check hw3a.cpp for the execution and chain.h for the chain<T>::split method