**CSCI 271 Homework 1**

1. Given 2 sorted linked lists, L1, L2, write an efficient ***algorithm*** to find the union of L1 and L2.
2. Prove $\sum\_{i=0}^{n}i^{2}= $n\*(n+1)\*(2n+1)/6 by induction.
3. Write a recursive algorithm to find a value in a linked list.
4. Prove log(AB) = B log A