Unfortunately, I did not finish the coalesce freeing of memory. Due to this, I was unable to complete each Akerman run and subsequently am unable to report my performance findings. Hypothetically however, increasing a and b within Akerman will drastically increase runtime in a working application. The bottle necks / poor performance for me were many nested loops that redundantly traverse the lists to get and set values that I needed to accurately make the program work. One performance improvement that I would implement would be the nested while loops within my Malloc function specifically. I'm not sure how to better implement this at this time but eliminating the need to cycle multiple times on each search will reduce runtime.