2/22/23 Linked Lists

singly - link to next node
doubly - link to next & previous, need dummy nodes, memory inefficient
last node points to NULL

Trees
graphs
sparse matricies

Pros:
- no fixed memory allocation
- no need to shift elements, just change pointers
- stacks & queues are easy to implement

Cons:
need a pointer to every element, every element needs allocation

- not great for caches bc not contiguous
- not super efficient
- cannot traverse randomly

Circular linked list - ends points to front

insertion is easy
removing is tricky, keep track of previous location

add move popular node to front,
not terible, just requires some rearranging