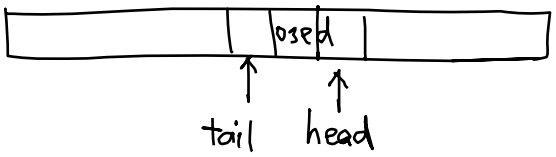
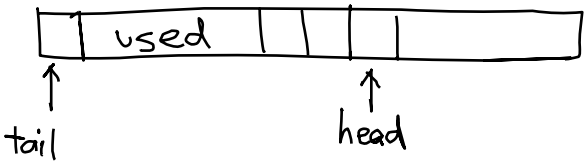
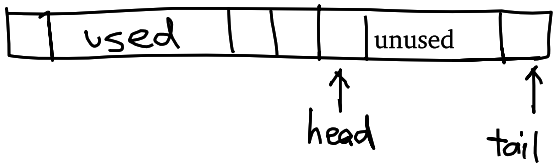
for 53, test 2 3 5 7 11
stop with 11 because
$11^2 = 121 \nleq 53$



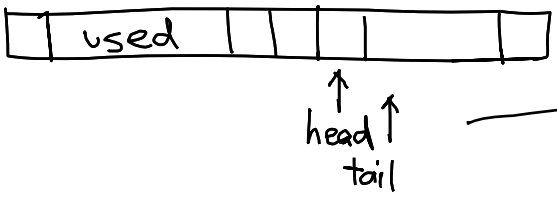
after adding a lot of items



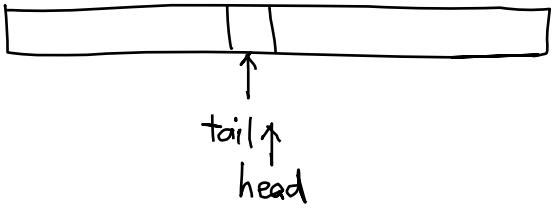
after adding one more item



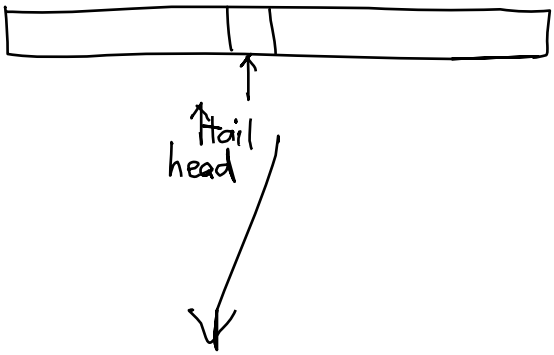
add some more items so the queue is full



when most items are removed, one remains



after removing the last item



the head and tail positions are identical when the circular is full and when it is empty!

Need another way to keep track of the head and tail of the queue so we can distinguish a queue being empty from a queue being full

Use an index to indicate which item is the head, and a counter/size to count number of items being used