"What if there are duplicate values?"

To overcome this we can use an

Algorithm Called,

"Floyd's Cycle-finding Algorithm" OR

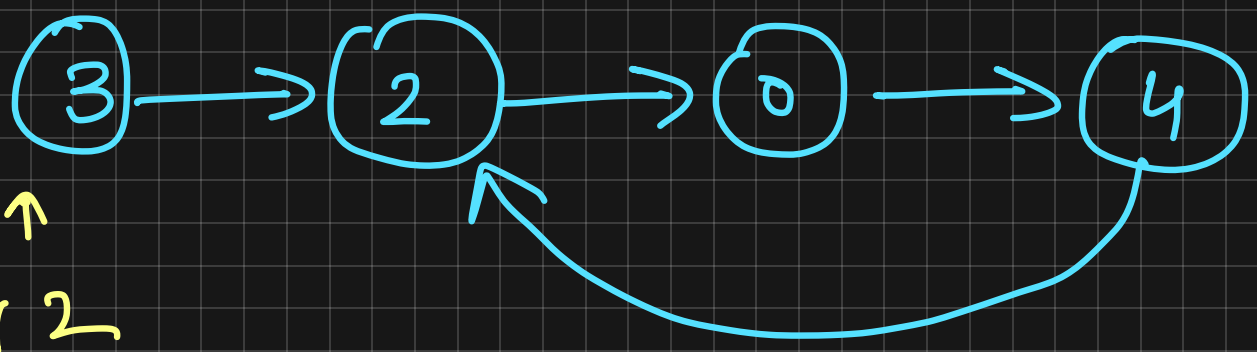
"fast-slow approach" OR

"2 pointers Approach" OR

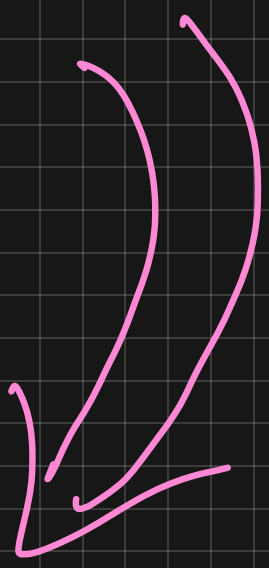
"Tortoise and the hare Algorithm"

In this Algorithm, we use 2 pointers and iterate through the Linked List. One pointer is the "slow" pointer which iterates one by one and the other is "fast" pointer which iterates the LL by two nodes.

ptr 1



ptr 2



ptr 1

ptr 2

Company ptr1 -> next with ptr2 -> next are they same? If Yes => Stop, return True

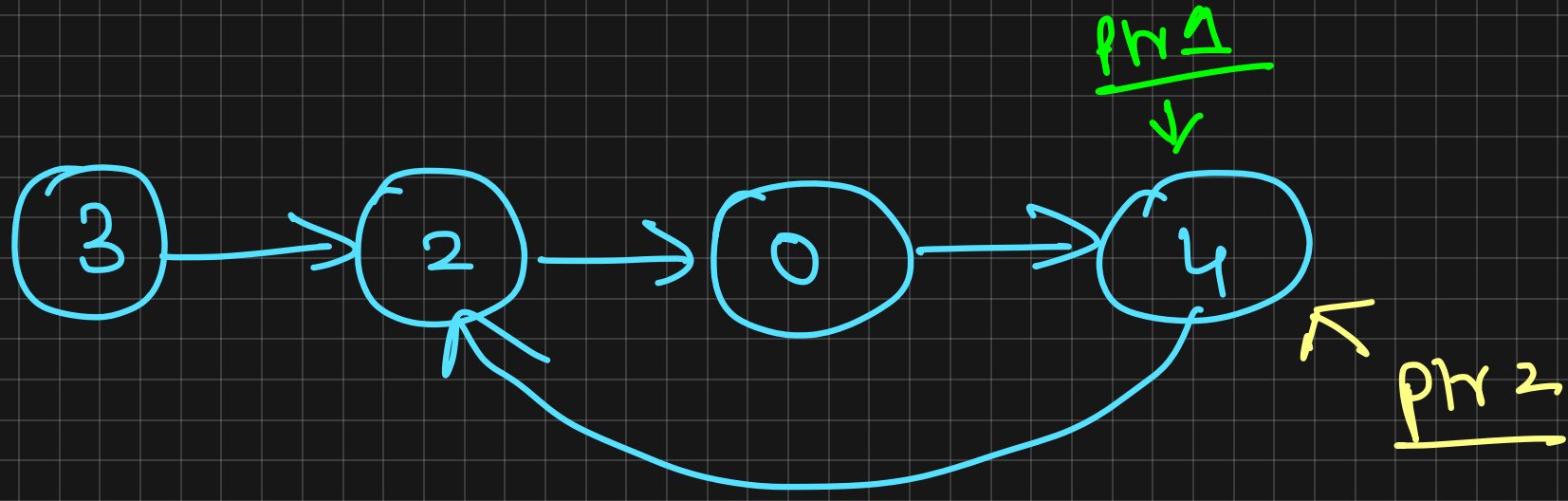
No => Continue loop.

ptr 2

ptr 1

Remember ptr 1 (slow) Traverses by 1

ptr 2 (fast) Traverses by 2



Comparing ptr1 -> next with ptr2 -> next

are they same? If Yes => stop, return True

No => Continue loop.

Hence we stop Iterating as we have found that a loop exists and hence return True.