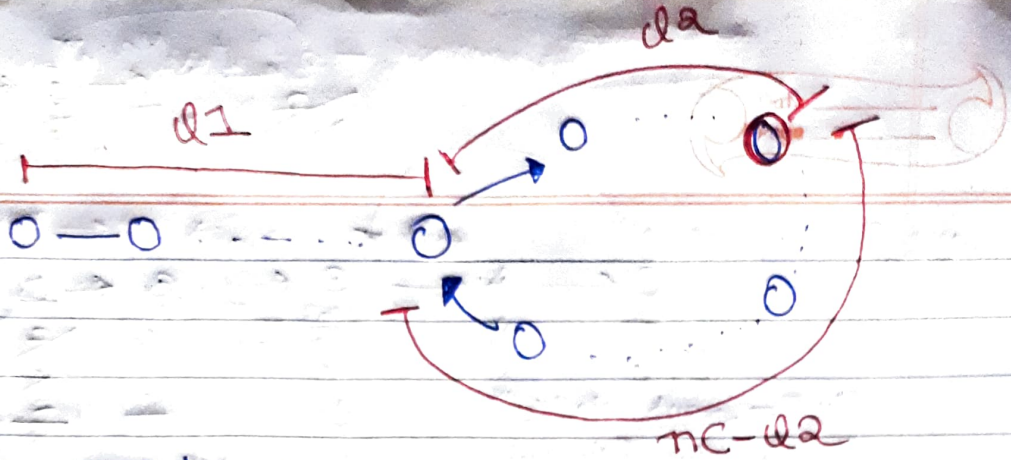

Let l1 = start of cycle
Let l2 = point where they meet in cycle (they can meet after any no of iteration of loop)

So we say slow pointer travelled distance = ds = l1+l2

Now if cycle length is C, my fast pointer must have taken n turns to reach and meet at L2.

So distance by fast = df = l1+l2+nC

But we know 2*ds = df (as fast travelled twice the distance)

So we have $2(l1+l2) = l1+l2+nC$

$l1+l2 = nC$

$$\boxed{l1 = nC-l2}$$

So nC-l2 represents remaining distance of cycle from l2 point

So if I start a pointer from start and another from l2 and move them one by one, they will be at same distance from start of loop!!

Here their meeting point will be start of loop!!