*Repeated DNA sequences

AAAAA CCCCC AAAAA CCCCCC AACA

5 5 5 6

fixed size of 10

AAAAA CCCCC

5 5

&

CCCCC AAAAA get repeated

5 5

~~finding next index substring~~ is a time consuming operation.
Cause TLE.

$O(n^2)$ Each substring store in a map & check whether its the 2nd occurrence

$O(n)$

- ~~create~~ ~~ai~~ do avoid creating substring part use an integer value with

No: _____ Date: __/__/____

bit manipulation to create.

A → 0 → 00
C → 1 → 01
G → 2 → 10
T → 3 → 11

} store in a map

sift by 2 & get or. only to take (2×10) bits & ~~avoid~~ ignore others, take & 0xfffff.
20

~~Of~~ Instead of using a map, we can do modulo division

A → 1 %5 = 1
C → 3 %5 = 3
G → 7 %5 = 2
T → 20%5 = 0