CF - 564 Div(2)

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(A) If z unknown people are more than or equal to the difference in current upvotes & downvotes then only can it change the outcome.

if $z \geq |x-y| \rightarrow ?$

else compare (x, y)

(B) Let x be the required minimum length.

Max diff x's coordinates can create is $x-1$ each

i) Now, if n is odd, $n-1$ is even (n-1 is max diff in hieracy)

$$2*(x-1) = n-1$$

$$(x-1) = \frac{n-1}{2} \rightarrow x = \frac{n-1}{2} + 1$$

As n is odd $\rightarrow \frac{n}{2} + 1$ is fine.

ii) for $(n \% 2 == 0)$, $n-1$ is odd

$$2*(x-1) = (n-1) + 1$$

As the required length will produce an extra diff.

$$x = \frac{n+1}{2}$$

for both $x = \frac{n}{2} + 1$

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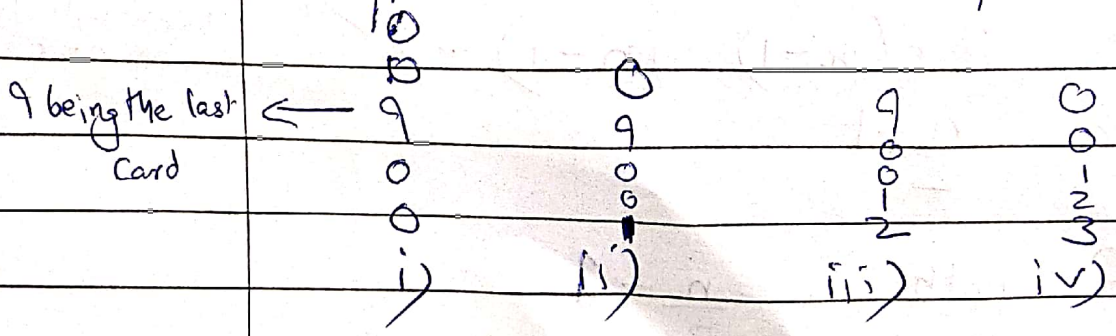
We can start from 1 1 go till 1 x
& the go from 2 x to while there are still pieces to be placed, & it is obvious that there will have ↓ as difference b/w piece no.s.
the same difference

(c) If 1 is in our hand then for some card x in pile with pos i

i operations will be required to remove it.
Now at the end n operations will be required to place all the cards on the pile but for the last numbered card on the pile we could start placing it's previous numbers at the bottom of the pile to reduce the steps. for ex



So the total steps would be $i-(x-1)+n$
We will find max such value as that would be the

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value for the bottomost card on the pile.

What if 1 is in the pile? There could be a increasing sequence below it.

We can first check for such sequence →

Let pos of 1 be x

then

x 1

x+1 2

⋮

J = x+i 3

Now J has to be > n for this sequence to be legitimate else a 0 or non-increasing +1 no at bottom will not be ideal.

if J > n then we can check if the elements after the element at pos n in the pile are available before they are needed to be placed.

If yes then, operations are n − i

i being the index till which the numbers are already placed in pile !

If No then normal solution will be used.