Saturday, 15 February 2025 4:05 PM

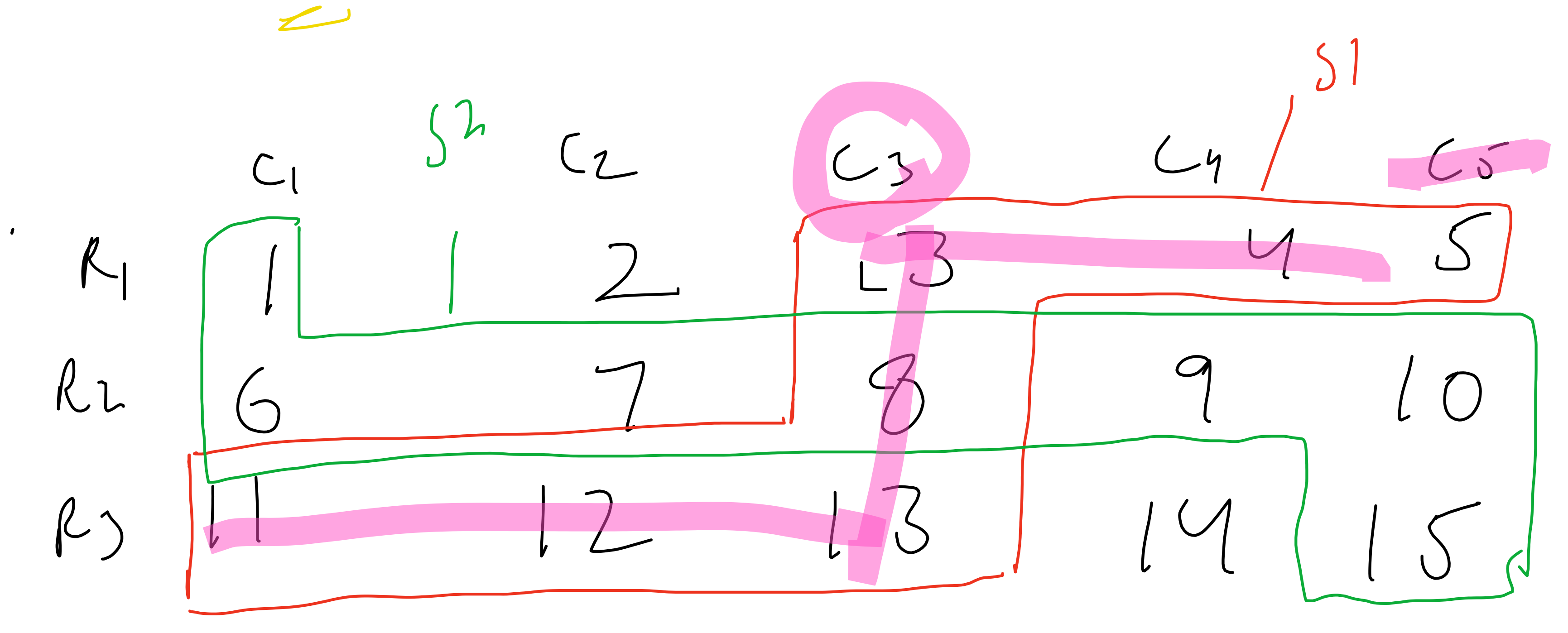
Agenda:-

1. Swastika & sum
2. Gifts
3. Code Zen

I Swastika & sum

n-row m- col

n,m - odd



	C1	C2	C3	C4	C5
R1	1	2	3	4	5
R2	6	7	8	9	10
R3	11	12	13	14	15

S2 → Sum of first col from R_1 to R_{n-1}

+

Sum of Middle Row

+

sum of Last col from (m+1) to last

S1 = Sum of first Row from

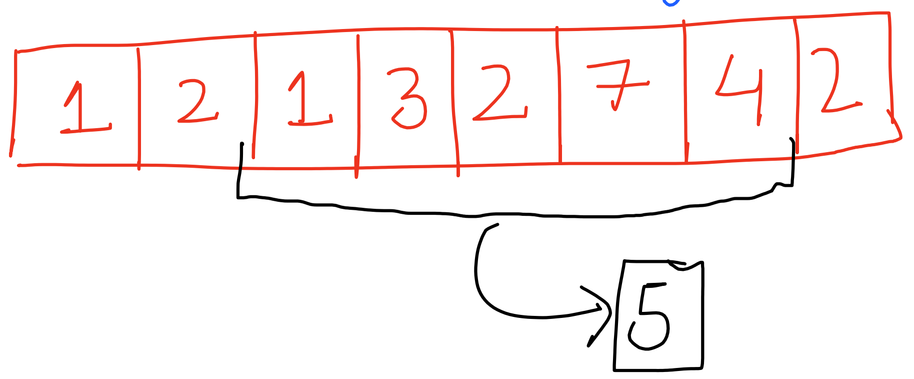
+ (mid+1) to Last col

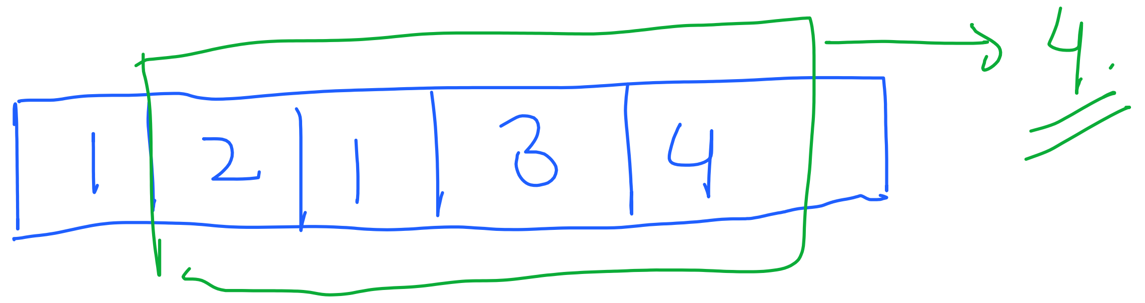
Sum of ~~Sum~~ middle col
+
Sum of Last Row from first col to (mid-1) col

```
sum1=0                sum2=0

S1   col from m-1 to m/2
             sum1+= arr[0] [col]

     row from 0 to n-1
             sum1 += arr[row] [col/2]

     col from m/2 to 0
             sum1 + = arr [n-1] [col]


S2   Row 0 to n/2
             sum2+ =arr[row][0]

     col 0 to m -1
             sum2 + = arr [n/2] [col]

     row n/2 to n-1
             sum2 + = arr[r] [m-1]

return   Maths. abs (S1-S2);
```

II Gifts.

Longest SubArrays having unique items

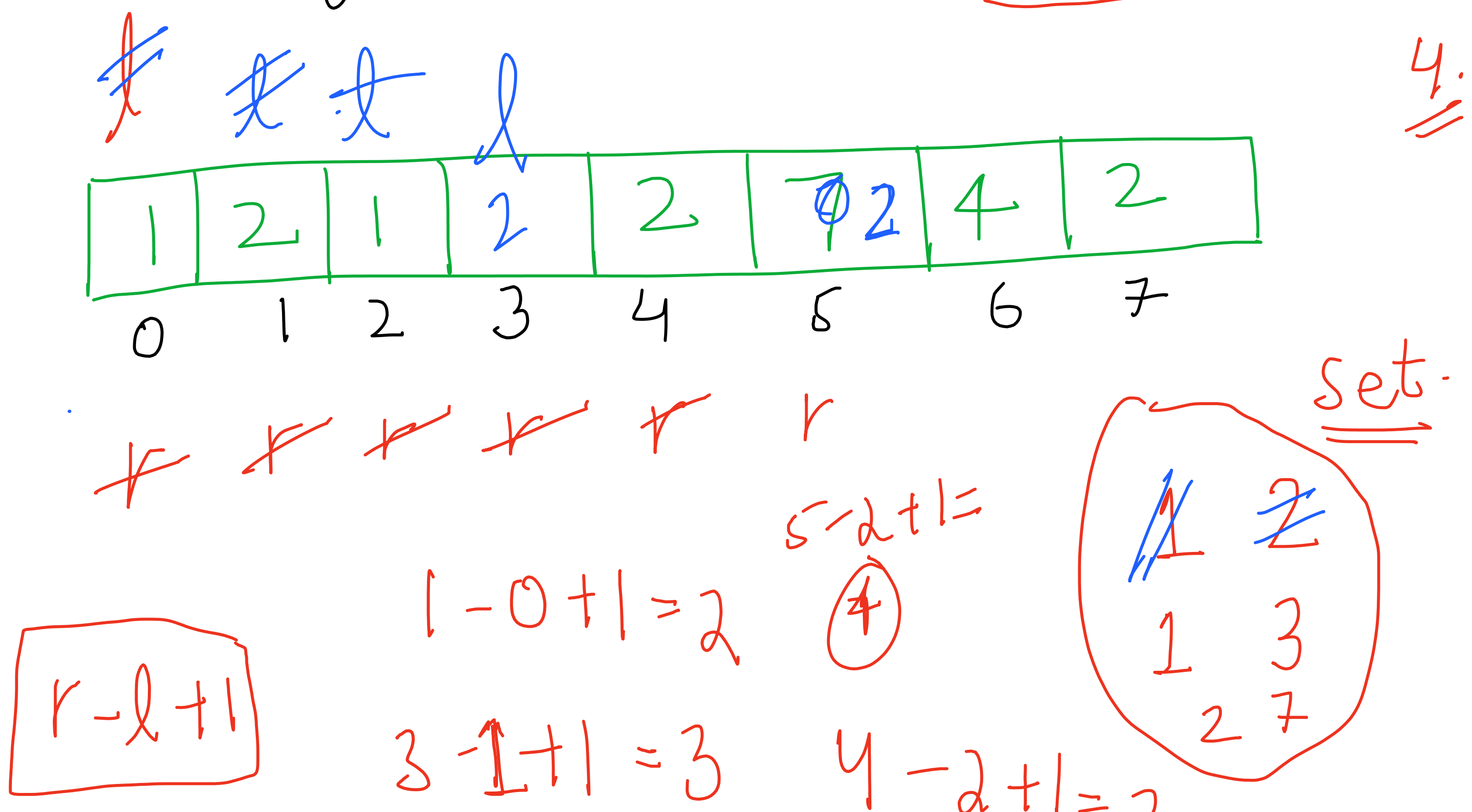




sliding window.

ans = ~~0~~ ~~1~~ ~~2~~ ~~3~~

4.



$r - l + 1$

$1 - 0 + 1 = 2$

$3 - 1 + 1 = 3$

$5 - 2 + 1 = 4$

$4 - 2 + 1 = 3$

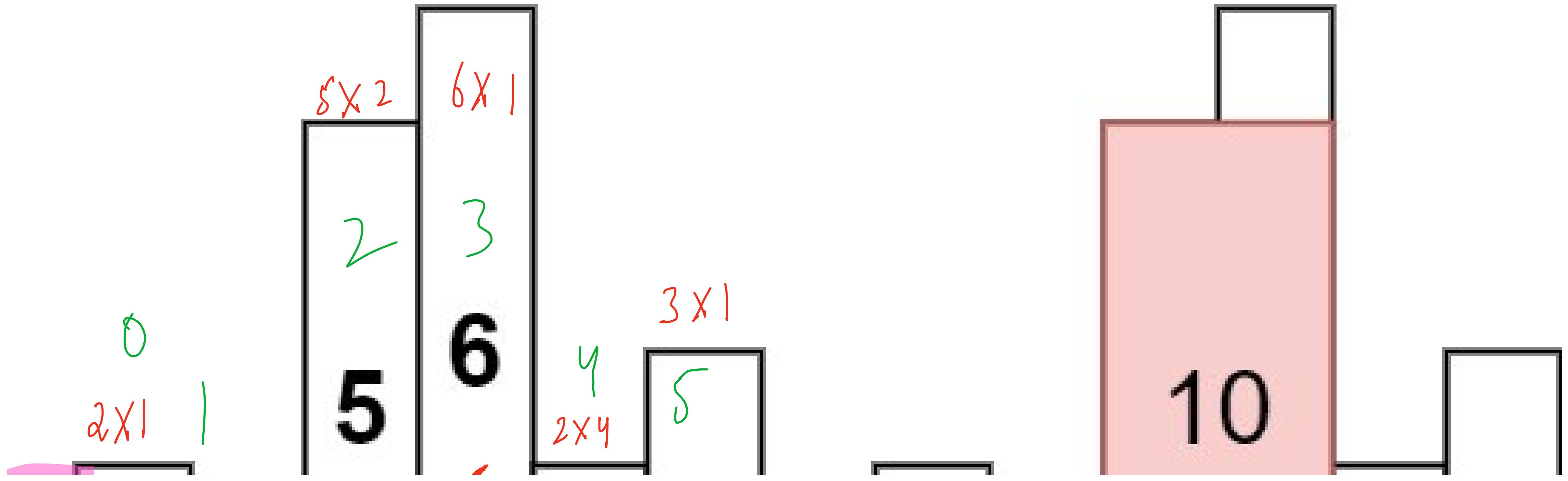
let left =0;
let right =0;

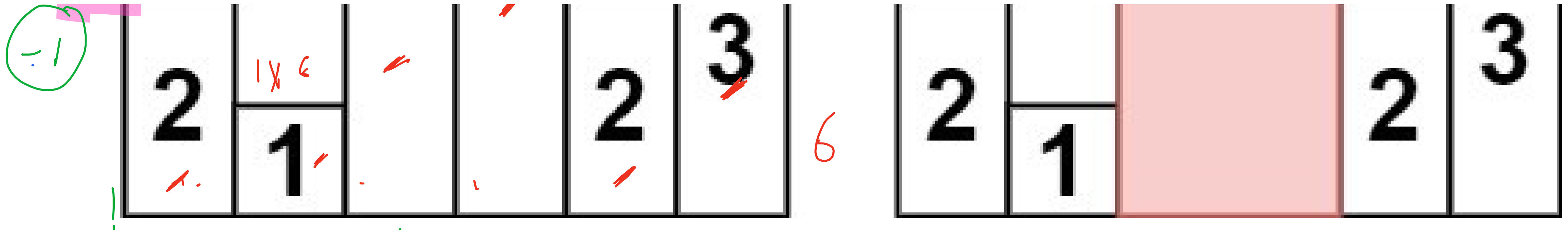
```
let ans =0;
Set <Integer> set =new Hashset <>();
while (right < arr.length)
{
    while ( arr[right] present in set)
    {
                l ++
                set. delete (arr [left])
    }
    Set. add (arr[right])
    ans = Math. max (ans, right-left +1);
    right ++
}
```

— O(N)

— SC — O(N) worst case

③ CodeZen.





NSOL	-1	-1	1	2	1	4
NSOR	1	6	4	4.	6	6

-1

	0	1	2	3	4	5
	2	1	5	6	2	3
NSOL	-1	-1	1	2	1	4
NSOR	1	6.	4	4	6	6
	1	6	2	1	4	1

6

6-4-1

6-(-1)-1

6+1-1

= 6

1-(-1)-1

1+1-1

=1

* (NSOR - NSOL -1)

2x1=2

1x6=6

5x2=10

6x1=6

2x4=8

3x1=3

ans = ~~0~~ ~~2~~ 6 10

$\boxed{\text{ans}=10}$

```
function max_Area (arr)
{
    int nsor = NSOR (arr);
```

```
let nsor = NSOR ( );
let nsol = NSOL (arr)
for (i=0; i<arr.length; i++)
{
    let width = nsor[i] - nsol[i] - 1;
    let myans = arr[i] x width;
}   ans = Math.max (myans, ans)
return ns'
```

Doubt Session.

Agenda ✓