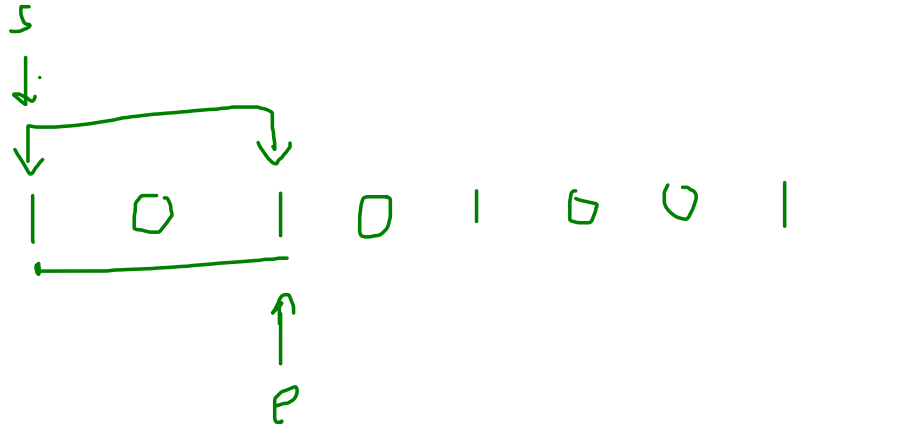
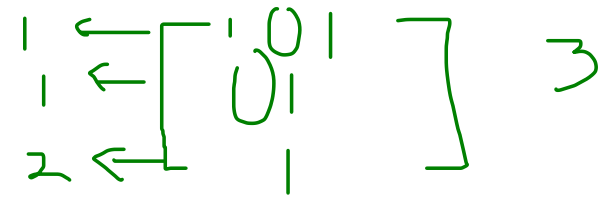


goal  $\geq$



count num of subArr with sum = goal



Window  
size

Sum of subArr  $\leq$  goal  $\rightarrow$  goal + (goal-1) + (goal - 2) ...

Sum of SubArr = 2, 1, 0 ...

Sum of SubArr  $\leq$  (goal - 1)  $\Rightarrow$  2 - 1 = 1

1, 0, ....

goal = 5

(1). sum of all subArr  $\leq$  goal  $\rightarrow$  5, ~~4, 3, 2, 1, 0~~

(2). sum of all subArr  $\leq$  goal - 1  $\rightarrow$  5 - 1 = ~~4, 3, 2, 1, 0~~

final subArr count with sum = goal  $\Rightarrow$  (1) - (2)

why not recursion , as  $f(x)$  is not function of  $x$  it is some constant

$$f(x) = f(\text{constant}) - f(\text{constant}-1)$$

$$\text{ans} = (\text{window len}) = e_i - s_i + 1$$

```
sumWindow > targetValue
```

- final ans = 1 - 2

sumWindow = 0 + 0 = 0

[illegible]

5  
↓

|

0

1

0

1

0

0

1

1

↑

e

acquire --> everyTime

Release --> while(windowSum > targetValue)

record Ans --> everyTime

k 2

2 2 1 1 2 2 1 1 2

count subArr with exactly k odd integer = (count subArr with  $\leq k$ ) - (count subArr with  $\leq k - 1$ )

0	1	2	3	
1	2	1	2	3

$$k = 2$$

$$k - 1 = 1$$

S

↓

4

3

↑  
2

Integer, Integer

~~1 - 0~~

~~2 - 0~~

~~1 - 0~~

~~2 - 0~~  
3 - 1

$$\overbrace{1 \ 2} = \sum = 7$$

count subArr with exactly k distinct integer = (count subArr  $\leq$  k) - (count subArr  $\leq$  k - 1)

$$\text{ans} = 0 + 1 + 1 + 1 + 1 + 1 = 5$$

$$\text{distinct Integer in window} = 0 + 2 + 2 + 2 + 2$$