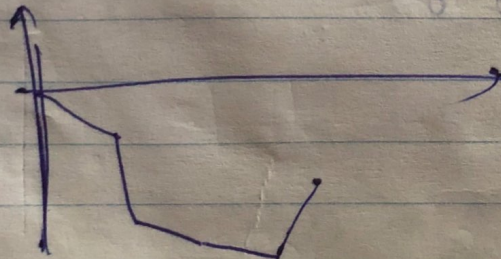
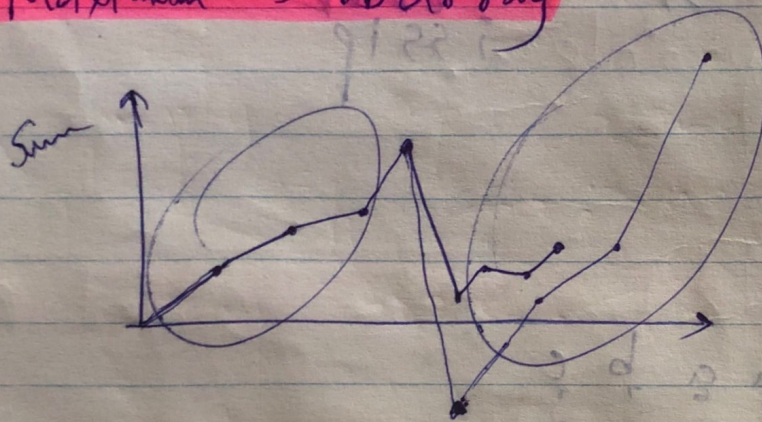


* Maximum Subarray



Can use naive approach

5, 4, -1, 7, 8
↓

5, 9, 8, 15, 23

then subtract each & get max.

5, \Rightarrow 9, $9-5$ \Rightarrow 8, $8-5$, $8-9$ \Rightarrow ...

DP approach

-2, -1, 4

$\text{item} = \max(\text{preSum} + \text{item}, \text{item})$

-2, -1, 4

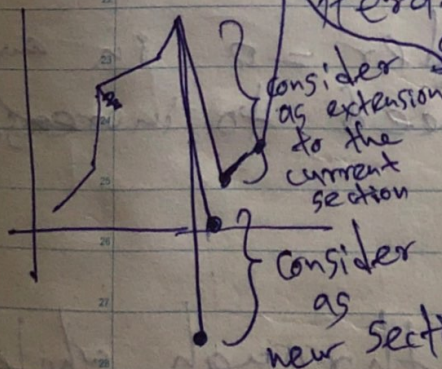
same like

or, $\text{item} = [(\text{prev} > 0) ? \text{prev} : 0] + \text{item}$

• Kadane's algorithm

-2, 1, -3, 4, -1, 2, 1, -5, 4

iterate:



~~Sum = item + cur~~

~~Sum = item~~

Sum += item

Sum < 0 ? Sum = item

if $\text{preMax} < \text{Sum}$; $\text{preMax} = \text{Sum}$