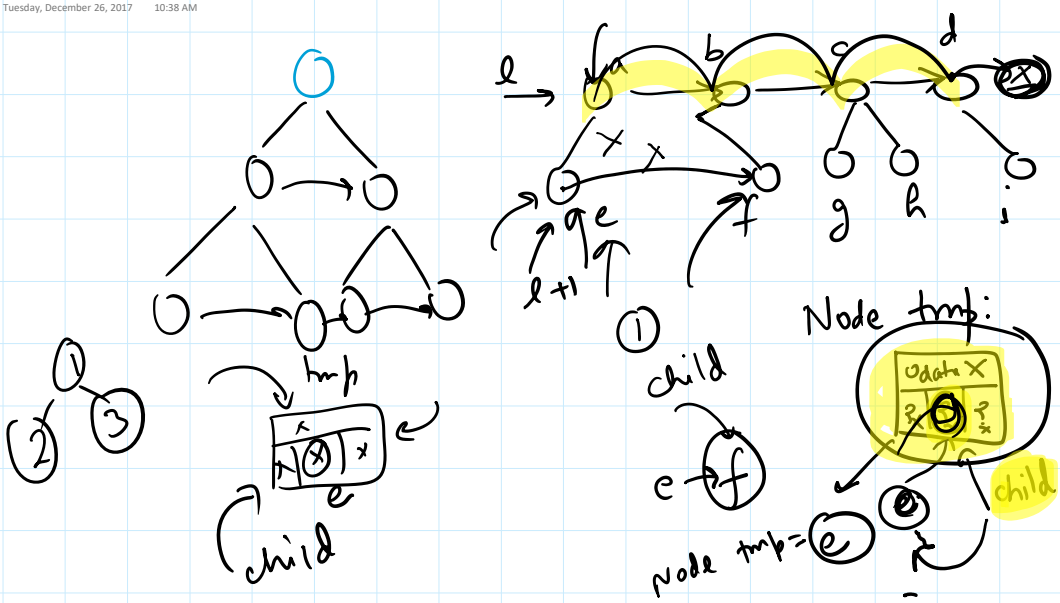
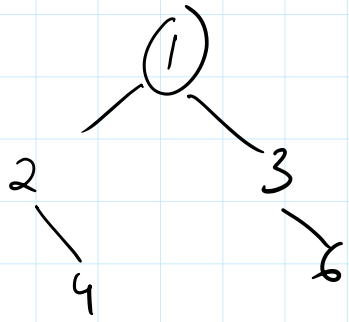
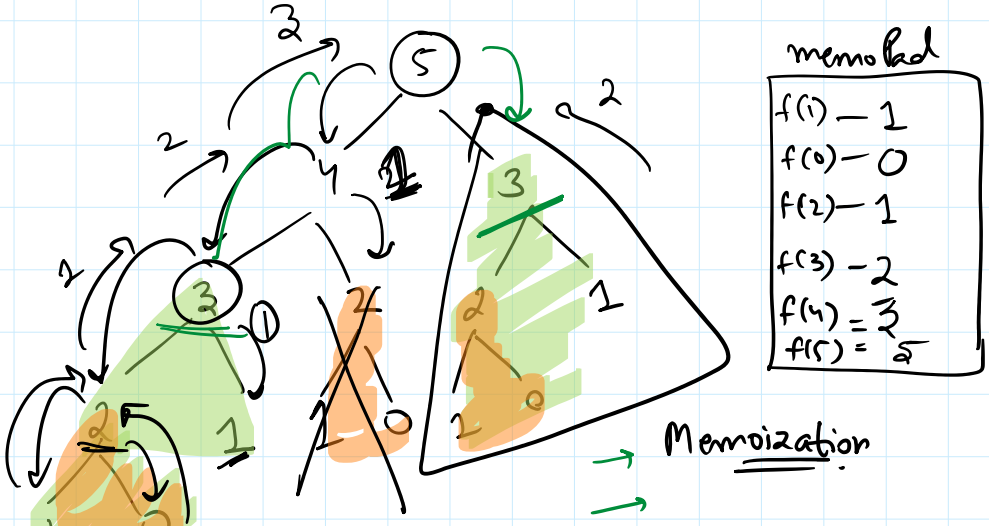
Deepak_Aggarwal(deepak@codingblocks.com)
Tuesday, December 26, 2017 10:38 AM



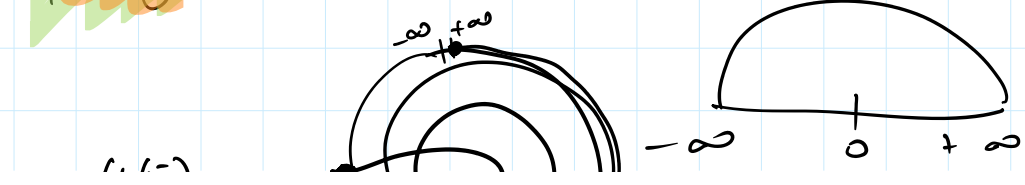


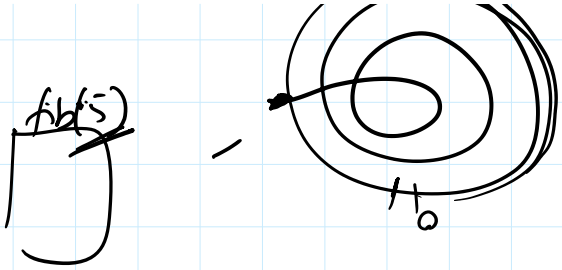
Fib

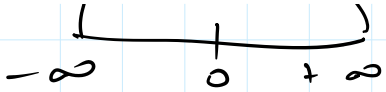
```
n==0 || n==1    ret n
fib(n) = fib(n-1) + (n-2)
```



→ Memoization

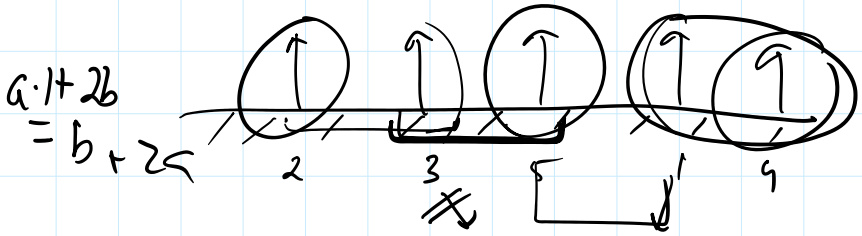


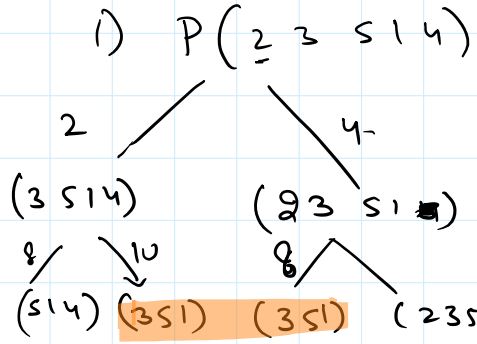


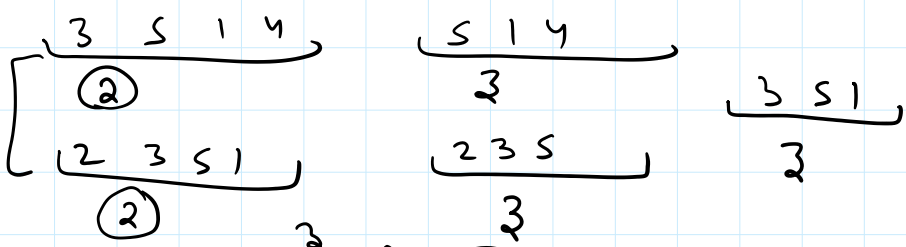


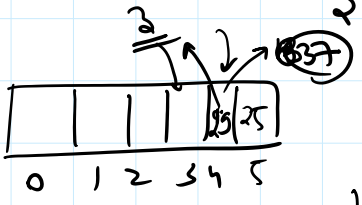
① State

② Overlapping subproblem



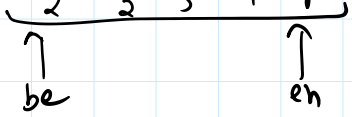






5 _ _ _ _ _

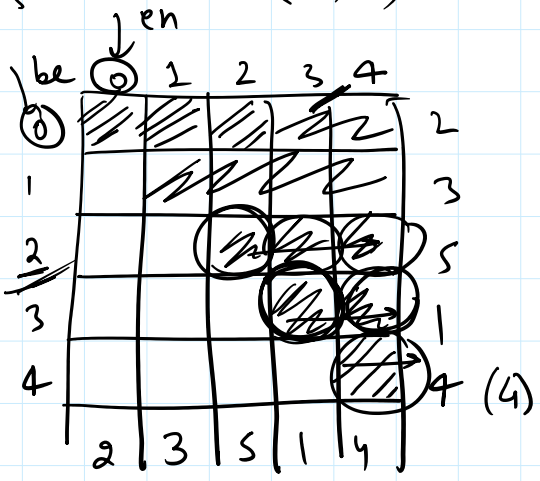
(be, en)

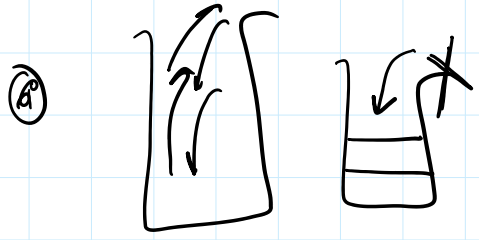


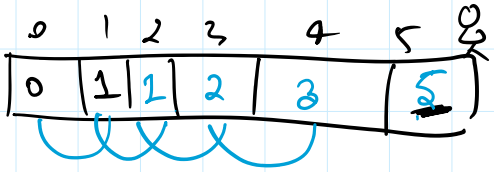
be, 4 (2,1) X

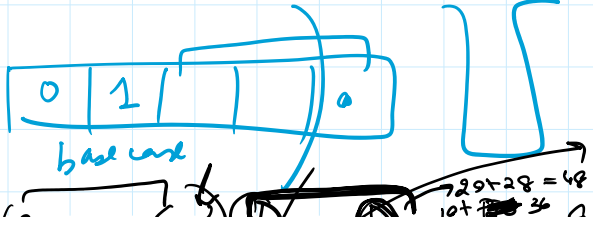
(2,4)

(4,4)







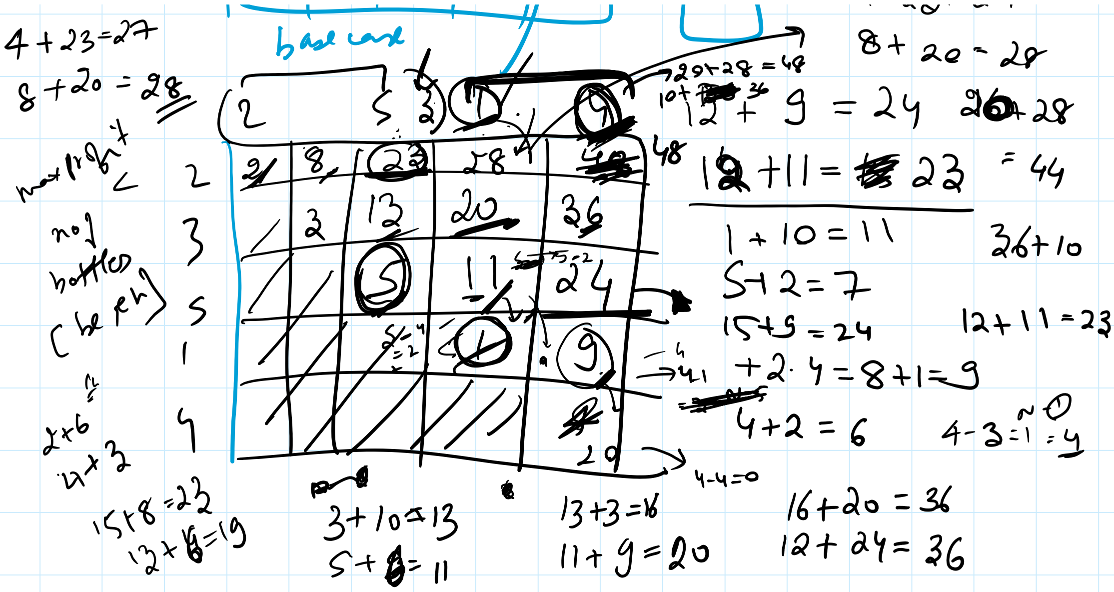


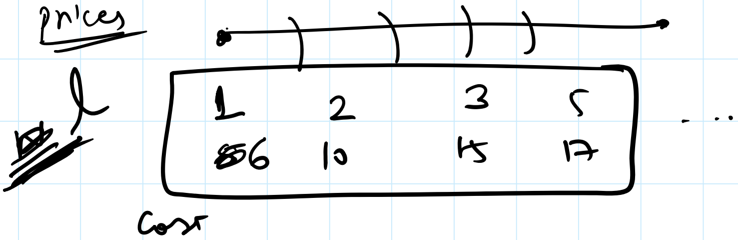
4+23=27

8+20=28

4+23=27

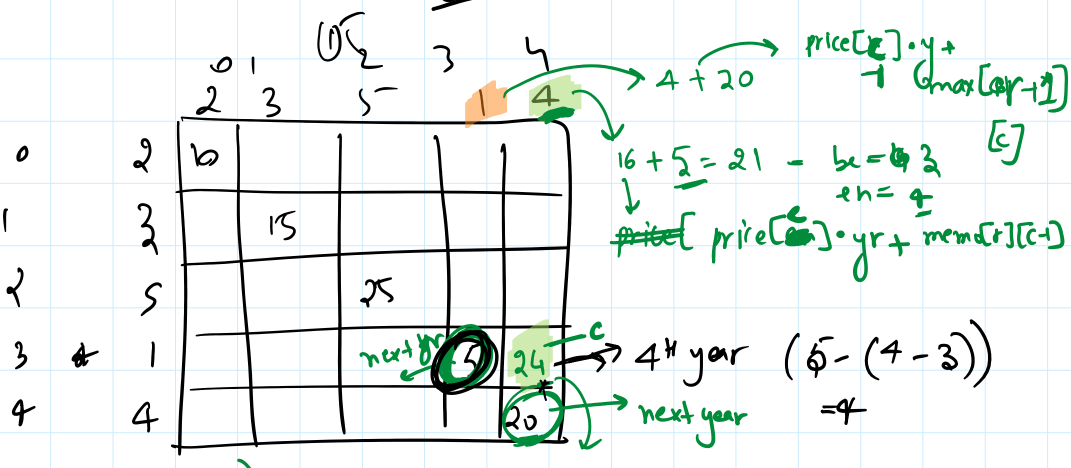
8+20=28





8 — 1 + 1 + 1 + . . . 1 = 6 × 8 = 48

8 — 3 + 2 + + 1 + 1



(next yr from beg)

(next yr from end)

cell = price[en] + (end ...) + memo[curr row][en - 1]

$$dp[i][j] = \max\left(price[j]\cdot yr + dp[i][j-1],\ price[i]\cdot yr + dp[i+1][j]\right)$$

cur cell