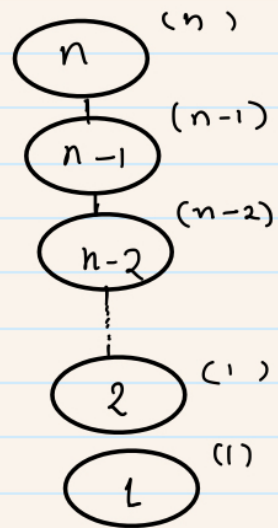
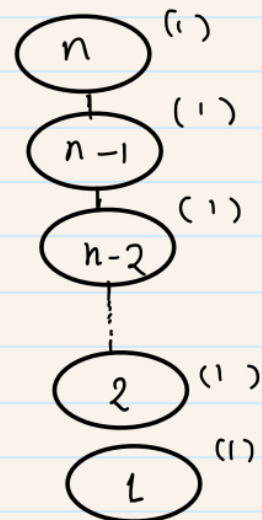


Q1
a.



$$T(n) = n + (n-1) + (n-2) + \dots + 2 + 1$$

$$= \frac{n(n+1)}{2} = O(n^2)$$



$$T(n) = 1 + 1 + 1 + \dots + 1 = n = O(n)$$

(3) $O(n) > O(n^2)$ because

