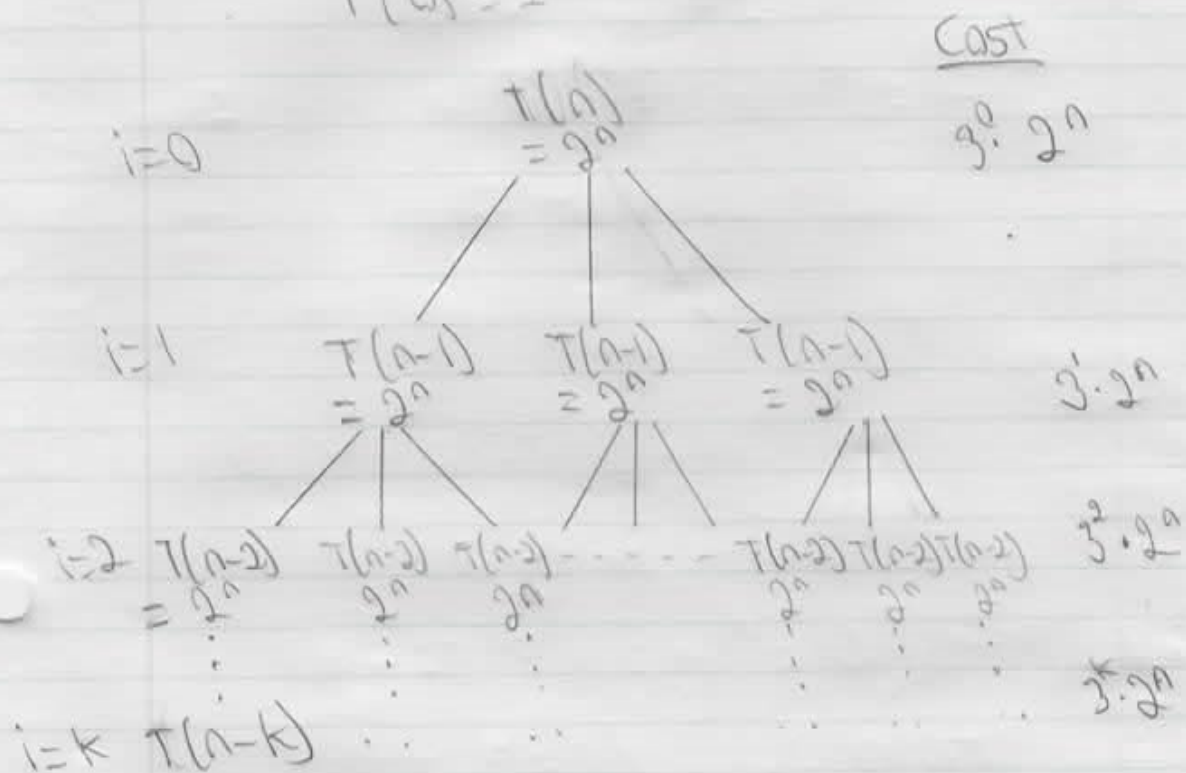


Q3. $T(n) = 3T(n-1) + 2^n$ if $n > 0$
 $T(0) = 1$



$$T(n) = \sum_{i=0}^{n-1} 3^i \cdot 2^n = 2^{n-1} (3^n - 1) \in O(3^n)$$