

Given an index  $k$ , return the  $k$ th row of the Pascal's triangle.

Pascal's triangle : To generate  $A[C]$  in row  $R$ , sum up  $A'[C]$  and  $A'[C-1]$  from previous row  $R - 1$ .

**Example:**

Input :  $k = 3$

Return :  $[1, 3, 3, 1]$

**NOTE** :  $k$  is 0 based.  $k = 0$ , corresponds to the row  $[1]$ .

*Note: Could you optimize your algorithm to use only  $O(k)$  extra space?*