

1. recursion(n, k)

if $n == k$.

then return 1

else if $k == 0$

then return 1

else if $n == 0$ and $k > 0$

then return 0

else return recursion($n-1, k-1$) + recursion($n-1, k$)

2. $dp(n, k)$

for $i=0$ to n

for $j=0$ to k

if $i=j$

then $m(i, j) = 1$

else if $j=0$

then $m(i, j) = 1$

else if $i=0$ and $j > 0$

then $m(i, j) = 0$

else $m(i, j) = m(i-1, j-1) + m(i-1, j)$