

What is the minimum amount of trails?

Ans: n

a) when we drop a glass sheet from a floor p , there can be two cases

1. the glass sheet breaks 2. the glass sheet does not break

At first, If the glass sheet break after dropping from P th floor, then we need only to check for floors lower than P with remaining glass sheets. it will be $P-1$ floors and $m-1$ glass sheets.

Secondly, if the glass sheet does not break after dropping from P th floor, then we need to check for floors higher than P . Then it will be $n-p$ floors and m glass sheets.

As we need to minimize the number of trails in worst case, we take the maximum of 2 cases.

N == number of floors.

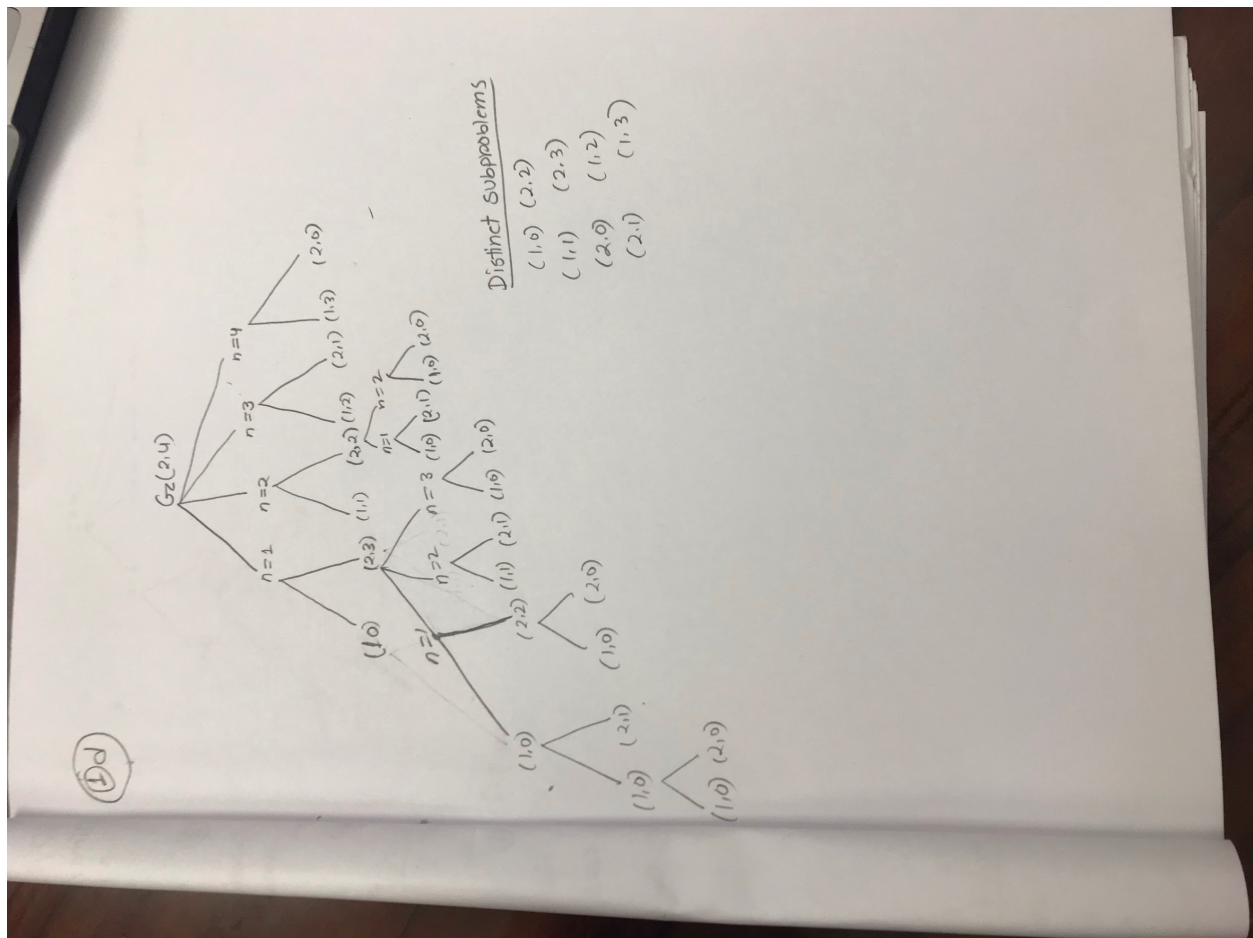
M == number of glass sheets.

$\text{glassSheetsDrop}(n, m) \gg$ minimum no of trails in worst case

$\text{glassSheetsDrop}(n, m) \gg 1 + \min(\max(\text{glassSheetsDrop}(m-1, p-1), \text{glassSheetsDrop}(m, n-p)))$:

p is in $\{1, 2, \dots, n\}$

(b)



(d)8

(e) $n*m$

(f)in the memorization, we solve once and store the value in the array.on the other hands.in the recursion, we solve the subproblems again and again.

The following steps are required:

a)check the table[m,n] is nil or not

b) if it is nil f[m,n] return the value table[m,n]

c)if it is nil and [m,n] satisfies the base condition, we update the table.

d)if it is nil and m,n does not satisfy the base condition
then f[m,n] spilts the problem.

e) after the recursion calls return f[m,n] combines the solutions to subproblems.