

1. DP. let $g[i][j]$ denote the maximum floor we can detect using i moves and j eggs.

$$\begin{cases} g[i][j] = g[i-1][j-1] + g[i-1][j] + 1 & (i, j > 1) \\ g[1][j] = 1 \end{cases}$$

$O(\sqrt{n})$.

国家集训队2004论文集：朱晨光《优化,再优化! ——从《鹰蛋》一题浅析对动态规划算法的优化》

<https://wenku.baidu.com/view/286731b765ce05087632131b.html>

2. use generating functions to optimize the calculation for g . $g[i][j] = \sum_{k=0}^j \binom{j}{k} - 1$.

this algorithm is actually for a more general problem: 1893: Ural 鹰蛋

see <https://blog.csdn.net/limboman/article/details/53366049>

References