

Problem 651: 4 Keys Keyboard

Problem Information

Difficulty: Medium

Acceptance Rate: 55.94%

Paid Only: Yes

Tags: Math, Dynamic Programming

Problem Description

Imagine you have a special keyboard with the following keys:

* A: Print one 'A' on the screen. * Ctrl-A: Select the whole screen. * Ctrl-C: Copy selection to buffer. * Ctrl-V: Print buffer on screen appending it after what has already been printed.

Given an integer n , return the maximum number of 'A' you can print on the screen with at most n presses on the keys.

Example 1:

Input: $n = 3$ **Output:** 3 **Explanation:** We can at most get 3 A's on screen by pressing the following key sequence: A, A, A

Example 2:

Input: $n = 7$ **Output:** 9 **Explanation:** We can at most get 9 A's on screen by pressing following key sequence: A, A, A, Ctrl A, Ctrl C, Ctrl V, Ctrl V

Constraints:

$1 \leq n \leq 50$

Code Snippets

C++:

```
class Solution {  
public:  
    int maxA(int n) {  
  
    }  
};
```

Java:

```
class Solution {  
    public int maxA(int n) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def maxA(self, n: int) -> int:
```