**Special Keyboard**

Imagine you have a special keyboard with the following keys:

Key 1:  Prints 'A' on screen  
Key 2: (Ctrl-A): Select screen  
Key 3: (Ctrl-C): Copy selection to buffer  
Key 4: (Ctrl-V): Print buffer on screen appending it after what has already been printed.

Find maximum numbers of A's that can be produced by pressing keys on the special keyboard N times.

**Example 1:**

**Input:** N = 3

**Output:** 3

**Explaination:** Press key 1 three times.

**Example 2:**

**Input:** N = 7

**Output:** 9

**Explaination:** The best key sequence is

key 1, key 1, key 1, key 2, key 3,

key4, key 4.

**Your Task:**  
You do not need to read input or print anything. Your task is to complete the function **optimalKeys()** which takes N as input parameter and returns the maximum number of A's that can be on the screen after performing N operations.

**Expected Time Complexity:** O(N2)  
**Expected Auxiliary Space:** O(N)

**Constraints:**  
1 < N < 76