

## 5664. Building Boxes

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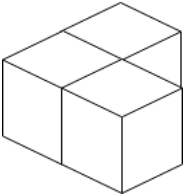
You have a cubic storeroom where the width, length, and height of the room are all equal to  $n$  units. You are asked to place  $n$  boxes in this room where each box is a cube of unit side length. There are however some rules to placing the boxes:

- You can place the boxes anywhere on the floor.
- If box  $x$  is placed on top of the box  $y$ , then each side of the four vertical sides of the box  $y$  **must** either be adjacent to another box or to a wall.

Given an integer  $n$ , return the **minimum** possible number of boxes touching the floor.

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Hard

Example 1:

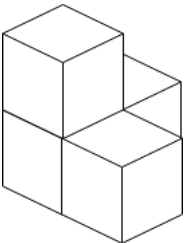


**Input:**  $n = 3$

**Output:** 3

**Explanation:** The figure above is for the placement of the three boxes. These boxes are placed in the corner of the room, where the corner is on the left side.

Example 2:

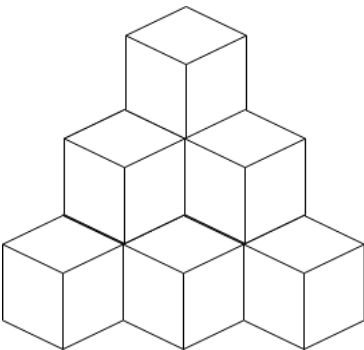


**Input:**  $n = 4$

**Output:** 3

**Explanation:** The figure above is for the placement of the four boxes. These boxes are placed in the corner of the room, where the corner is on the left side.

Example 3:



**Input:**  $n = 10$

**Output:** 6

**Explanation:** The figure above is for the placement of the ten boxes. These boxes are placed in the corner of the room, where the corner is on the back side.

**Constraints:**

- $1 \leq n \leq 10^9$

JavaScript



```
1 ▾ /**
2   * @param {number} n
3   * @return {number}
4   */
5 ▾ var minimumBoxes = function(n) {
6
7   };
```

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