

1362. Airplane Seat Assignment Probability

Difficulty : Medium

<https://leetcode.com/problems/airplane-seat-assignment-probability>

n passengers board an airplane with exactly n seats. The first passenger has lost the ticket and picks a seat randomly. But after that, the rest of the passengers will:

- Take their own seat if it is still available, and
- Pick other seats randomly when they find their seat occupied

Return *the probability that the n^{th} person gets his own seat*.

Example 1:

Input: $n = 1$

Output: 1.00000

Explanation: The first person can only get the first seat.

Example 2:

Input: $n = 2$

Output: 0.50000

Explanation: The second person has a probability of 0.5 to get the second seat (when first person gets the first seat).

Constraints:

- $1 \leq n \leq 10^5$