1227. Airplane Seat Assignment Probability

Description

`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 <= n <= 10 5`