

470. Implement Rand10() Using Rand7()

Given the API `rand7()` that generates a uniform random integer in the range $[1, 7]$, write a function `rand10()` that generates a uniform random integer in the range $[1, 10]$. You can only call the API `rand7()`, and you shouldn't call any other API. Please do not use a language's built-in random API.

Each test case will have one internal argument `n`, the number of times that your implemented function `rand10()` will be called while testing. Note that this is not an argument passed to `rand10()`.

Example 1:

- **Input:** `n = 1`
- **Output:** $[2]$

Example 2:

- **Input:** `n = 2`
- **Output:** $[2, 8]$

Example 3:

- **Input:** `n = 3`
- **Output:** $[3, 8, 10]$

Constraints:

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

Follow up:

- What is the expected value for the number of calls to `rand7()` function?
- Could you minimize the number of calls to `rand7()`?