

470. Implement Rand10() Using Rand7()

Description

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 <= n <= 105`

Follow up:

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

