552. Student Attendance Record II

An attendance record for a student can be represented as a string where each character signifies whether the student was absent, late, or present on that day. The record only contains the following three characters:

- 'A': Absent.
- 'L': Late.
- 'P': Present.

Any student is eligible for an attendance award if they meet both of the following criteria:

- The student was absent ('A') for strictly fewer than 2 days total.
- The student was never late ('L') for 3 or more consecutive days.

Given an integer n, return the number of possible attendance records of length n that make a student eligible for an attendance award. The answer may be very large, so return it modulo 109 + 7.

Example 1:

- **Input:** n = 2
- **Output:** 8
- **Explanation:** *There are 8 records with length 2 that are eligible for an award:*
  - "PP", "AP", "PA", "LP", "PL", "AL", "LA", "LL"
  - Only "AA" is not eligible because there are 2 absences (there need to be fewer than 2).

Example 2:

- **Input:** n = 1
- **Output:** 3

Example 3:

- **Input:** n = 10101
- **Output:** 183236316

Constraints:

- $1 <= n <= 10^5$