

5802. Count Good Numbers

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A digit string is **good** if the digits (**0-indexed**) at **even** indices are **even** and the digits at **odd** indices are **prime** (2 , 3 , 5 , or 7).

- For example, "2582" is good because the digits (2 and 8) at even positions are even and the digits (5 and 2) at odd positions are prime. However, "3245" is **not** good because 3 is at an even index but is not even.

Given an integer n , return the **total** number of good digit strings of length n . Since the answer may be large, **return it modulo** $10^9 + 7$.

A **digit string** is a string consisting of digits 0 through 9 that may contain leading zeros.

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Medium

Example 1:

Input: $n = 1$

Output: 5

Explanation: The good numbers of length 1 are "0", "2", "4", "6", "8".

Example 2:

Input: $n = 4$

Output: 400

Example 3:

Input: $n = 50$

Output: 564908303

Constraints:

- $1 \leq n \leq 10^{15}$

JavaScript



```
1 /**
2  * @param {number} n
3  * @return {number}
4  */
5 var countGoodNumbers = function(n) {
6
7  };
```

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