Problem Link:

<https://leetcode.com/problems/count-good-numbers/?envType=daily-question&envId=2025-04-13>

Solution:

class Solution {

public:

const int M = 1e9 + 7;

long long modPow(long long b, long long e, long long m) {

long long r = 1;

b %= m;

while(e > 0)

{

if(e % 2 == 1)

{

r = (r \* b) % m;

}

b = (b \* b) % m;

e /= 2;

}

return r;

}

int countGoodNumbers(long long n) {

long long e = (n + 1) / 2;

long long o = n / 2;

long long c = (modPow(5, e, M) \* modPow(4, o, M)) % M;

return (int)c;

}

};