Manasa and Combinatorics

Manasa has a string having **N** number of A's and **2*N** number of B's. She wants to arrange these characters in such a way that in each prefix and in each suffix of the string the number of **B**'s is greater than or equal to the number of **A**'s. Given the value of N, she wants to find the number of ways to do so.

Input Format
The first line contains an integer T i.e. number of test cases.
Next T lines will contain an integer N.

Output Format
A single line containing number of ways MOD 99991.

Constraints
1 <= T <= 25
1 <= N <= 10^{12}

Sample Input #00

```
2
1
2
```

Sample Output #00

```
1
4
```

Explanation

In first case, "BAB" is only valid string.
In second case, "BBAABB", "BABABB" , "BBABAB" and "BABBAB" are valid strings.