

5971 Permutation Counting

Dexter considers a permutation of first N natural numbers **good** if it doesn't have x and $x+1$ appearing consecutively, where $(1 \leq x < N)$. For example, for $N = 3$, all good permutations are:

1. {1, 3, 2}
2. {2, 1, 3}
3. {3, 2, 1}

Input

Input starts with an integer T (≤ 10000), denoting the number of test cases.

Each case starts with a line containing an integer N ($1 \leq N \leq 10^6$).

Output

For each case, print the case number and the number of **good** permutations *modulo* 1000 000 007.

Sample Input

```
3
2
3
5
```

Sample Output

```
Case 1: 1
Case 2: 3
Case 3: 53
```