Bell Number

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March 7, 2012

1 Task Description

1.1 Back Ground Information

For a n elements, the number of ways to partition this it into k non-empty, non-overlapping subsets is called Stirling Number, denoted by:

$$\left\{ \begin{array}{c} n \\ k \end{array} \right\}$$

For example,

$$\left\{ \begin{array}{c} 3 \\ 2 \end{array} \right\} = 2, \text{ because we can divide it into } \{\{1\},\{2,3\}\},\{\{1,2\},\{3\}\},\{\{1,3\},\{2\}\},$$
$$\left\{ \begin{array}{c} 3 \\ 1 \end{array} \right\} = 1, \text{ because we can divide it into} \{1,2,3\} = \{\{1\},\{2\},\{3\}\}.$$

and we define:

$$\left\{ \begin{array}{c} 0 \\ 0 \end{array} \right\} = 1, \left\{ \begin{array}{c} n \\ 0 \end{array} \right\} = 0, (n > 0)$$

Because there's always a way to divide 0 element into 0 subsite by doing nothing, and there's no way to divide non-0 number of elements into 0 subsite.
You may notice that here's very nice priority of Stirling Numbers, like:

$$\left\{ \begin{array}{c} n \\ 2 \end{array} \right\} = 2^{n-1} - 1$$

The Bell Number of n is the sum of all the stirling numbers of sets with n elements, i.e.,

$$B(n) = \sum_{k=0}^{n} \left\{ \begin{array}{c} n \\ k \end{array} \right\}$$

2 Main Task

Now we're interested in finding the bell number of given input n.

3 Input

First a numer T would be given as the number of test cases, then follows T numbers, each number represents the number n.

$$n <= 10^4, T <= 100$$

4 Output

For the given number n, output the bell number of the that n. each number per line.
Since the bell number for larger n would be huge, modulo the result by 100000007.

5 Sample IO

Input

4
0
2
4
10000

Output

1
2
15
22785804