Problem D

Anne's game

Time Limit: 2 seconds

> Lily: "Chantarelle was part of my exotic phase."
> Buffy: "It's nice. It's a mushroom."
> Lily: "It is? That's really embarrassing."
> Buffy: "Well, it's an exotic mushroom, if that's any comfort."
>
> Joss Whedon, "Anne".

A little girl whose name is Anne Spetring likes to play the following game. She draws a circle on paper. Then she draws another one and connects it to the first cicrle by a line. Then she draws another and connects it to one of the first two circles by a line. She continues this way until she has **n** circles drawn and each one connected to one of the previously drawn circles. Her circles never intersect and lines never cross. Finally, she numbers the circles from 1 to **n** in some random order.

How many different pictures can she draw that contain exactly **n** circles? Two pictures are different if one of them has a line connecting circle number i to circle number j, and the other picture does not.

Input

The first line of input gives the number of cases, **N**. **N** test cases follow. Each one is a line containing **n** (0<**n**<=100).

Output

For each test case, output one line containing "Case #**x**:" followed by X, where X is the remainder after dividing the answer by 2000000011.

Sample Input	Sample Output
3 1 2 3	Case #1: 1 Case #2: 1 Case #3: 3

Problemsetter: Igor Naverniouk