10843　Anne's game

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 ($0 < n \le 100$).

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

```
3
1
2
3
```

Sample Output

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Case #1: 1
Case #2: 1
Case #3: 3
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