Climb Steps

Given **N** number of stairs, output the number of ways you can climb those stairs given you can go 1, 2, or 3 step(s) at a time. (This is similar to the problem you did recursively, but with one more option.) You can assume the output will always be < `Integer.MAX_VALUE` (it won't overflow).

Input format

The first line contains a single integer **T**, the number of test cases.

The next **T** lines contain a single integer **N**, the number of steps in the ith staircase.

Sample Input
```
5
1
3
7
20
27
```

Sample Output
```
1
4
44
121415
8646064
```

Explanation

To calculate the number of ways to climb the first two sample inputs from above:

1. The first staircase only has 1 step, so there is only one way for him to climb it (i.e., by jumping 1 step). Thus, we print 1 on a new line.
2. The second staircase has 3 steps; you can climb it in any of the four following ways:

    - 1 -> 1 -> 1
    - 1 -> 2
    - 2 -> 1
    - 3

    Thus, you should print 4 on a new line for this case.