

Question No. 8

Given a number $N(N > 1)$ which can be expressed as sum of 2 and 3. You have to calculate the number of ways of writing a number as ordered sums of 2 and/or 3.

For example, there are 4 ways to write 8 as an ordered sum of 2s and/or 3s:

$$2 + 2 + 2 + 2$$

$$2 + 3 + 3$$

$$3 + 2 + 3$$

$$3 + 3 + 2$$

Input

The first line contains T , the number of test cases. It is followed by T lines, each containing a number N .

Output

You have to print the number of ways of writing N as ordered sum of 2 and/or 3.

Input:

3

2

3

8

Output:

1

1

4