

Out of place

You are given a very simple problem, you need to evaluate the following function for a number of values of n .

$$F(0)=1$$

$$F(n) = F(n/2) + F(n/5) + F(n/7)$$

Input:

The first line contains number test cases T ($T \leq 100$)

The next T lines contain a number n ($n \leq 10^9$)

Output:

T lines each having values of $F(n)$

Sample I/O

Input

3
0
5
15

Output

1
9
21