

# COMP6047 - Algorithm and Programming

## Session 7 – Function and Recursion

### Case 1 – Ventinacci

#### Problem Statement

Paimon and Venti likes to play fibonacci. Fibonacci is a famous sequence where the first two numbers are 0 and 1 and from then on every number is the sum of the previous two. Ventinacci is almost like fibonacci except ventinacci first five number are 0, 1, 1, 2, 3 and from then on every number of ventinacci is the sum of previous five. Given integer N, determine the N-th ventinacci number.

$$F(n) = F(n-1) + F(n-2) + F(n-3) + F(n-4) + F(n-5)$$

$$F(1) = 0$$

$$F(2) = F(3) = 1$$

$$F(4) = 2$$

$$F(5) = 3$$

#### Format Input

The first line is integer T represent number of test case. The next T lines contain integer N.

#### Format Output

There are T lines. Each line represent the output the N-th pentanacci number.

#### Constraints

- $1 \leq T \leq 10\,000$
- $1 \leq N \leq 100\,000$

## Test Case

Sample Input	Sample Output
3	7
5	205
10	6018
15	