

# Bacterial Growth

## Assignment 2

Computer Programming

Due date: 12 October, 2018

**Problem Statement:** In the city of *Bacteriapur* lives bacterias which are known to have a fast growing mechanism. For every time instant  $t$ , the number of bacterias living in *Bacteriapur* gets incremented by  $t$  times the current population. (starting with initial population,  $P_0 = 1$ ). Your task is to calculate the population of Bacteriapur after a given time instant  $t$ .

### Input

First line contains an integer  $T$  denoting the number of test cases. Each of the next  $T$  lines contains an integer  $t$ , denoting the time instant at which population of Bacteriapur needs to be calculated.

### Output

For each test case, output a single integer denoting the population of *Bacteriapur* after the given time instant  $t$

### Constraints

$$1 \leq T \leq 100$$

$$0 \leq t \leq 500$$

**Time Limit:** 1 sec

**Memory Limit:** 256 MB

### Sample Test Case

Input	Output
3	1
1	2
2	6
3	