# Project Euler #16: Power digit sum



### **Problem Statement**

This problem is a programming version of Problem 16 from projecteuler.net

 $2^9 = 512$  and the sum of its digits is 5 + 1 + 2 = 8.

What is the sum of the digits of the number  $2^N$  ?

# **Input Format**

The first line contains an integer T , i.e., number of test cases. Next T lines will contain an integer N.

### **Output Format**

Print the values corresponding to each test case.

### **Constraints**

 $\begin{aligned} &1 \leq T \leq 100 \\ &1 \leq N \leq 10^4 \end{aligned}$ 

## **Sample Input**

3 3 4 7

# **Sample Output**

8 7 11