## Interesting Subset

You are given a set $X=\{1,2,3,4, \ldots, 2 n-1,2 n\}$ where $n$ is an integer. You have to find the number of interesting subsets of this set $X$.

A subset of set $X$ is interesting if there are at least two integers $a$ and $b$ such that $b$ is a multiple of $a$, i.e. remainder of $b$ divides by $a$ is zero and $a$ is the smallest number in the set.

## Input

The input file contains multiple test cases. The first line of the input is an integer T (<= 30) denoting the number of test cases. Each of the next T lines contains an integer ' $n$ ' where $1<=n<=1000$.

## Output

For each test case, you have to output as the format below:

## Case $\mathrm{X}: \mathrm{Y}$

Here X is the test case number and Y is the number of subsets. As the number Y can be very large, you need to output the number modulo 1000000007.

## Example

Input:
3
1
2
3

## Output:

Case 1: 1
Case 2: 9
Case 3: 47

