

There is a series known as the fun sequence. The first of the two digits is 1. If there are  $n$  numbers in the series, the  $n$ th number will be formed by adding the two preceding numbers. If the sum of the previous two integers is a multiple of 5, subtract it from 5. You have to find the given  $n$ th integer.

## Input Format

The integer value  $t$  in the first row indicates the number of testcases. Then the next  $t$  lines provide the integer number  $n$  to discover the sequence's  $n$ th number. Example: 2 3 9

## Constraints

$t > 0$

## Output Format

2 2