Atlantis' Number System

Time Limit	0.2s
Memory Limit	64MB

Description

Scientist recently discover ancient ruins about the lost Atlantis. the ruins contains information about Atlantis' numerical system. Their number system only contains 4 digits that is A, B, C, and D which is consecutively equivalent to 1, 5, 10, and 50 in our numerical system.

Their numbers are written as a sequence of one ore more digit. The value of their number is equal to the sum of the digit in it. Since the scientist notice that the some number may represent the same value, they ask you as the genius programmer to help them count the number of distinct integer in our number system such that it can be represent in Atlantis' number system in exactly N digits.

Input Format

First line contains a positive integer T, the number questions asked by scientist.

Next T lines, for each $1 \leq i \leq T$ line contains a positive integer N_i the i-th question.

Output Format

Print T lines, for each $1 \leq i \leq T$ line, print one integer, the answer to the i-th question.

Constraint

- $1 \leq T \leq 10^5$
- $1 \leq N_i \leq 10^{16}$

Sample Input 1

```
3
1
2
4
```

Sample Output 1

```
4
10
35
```