

Gopu and Digits Divisibility

One day Little Gopu was playing with numbers. As he is little boy, he was wondering about divisibility rules that how they apply and what is the logic behind them. Few days ago he has also learnt how to find sum of digits of a number.

He thought about finding the smallest number greater than or equal to n , which is a "nice" number. A number is called "nice" if it is divisible by sum of its digits. He is unable to solve this puzzle. Can you write a program to help the Little Gopu?

eg. if $n = 11$, 11 is not divisible by $1 + 1 = 2$, But 12 is divisible by $1 + 2 = 3$. So answer for case $n = 11$ should be 12.

Input

First line contains T : number of test cases. ($1 \leq T \leq 10^4$).

For each test case, It contains a single integer n in a line, ($1 \leq n \leq 10^{18}$).

Output

For each test case, output the smallest "nice" number greater or equal to n .

Example

Input:

```
3
11
22
2
```

Output:

```
12
24
2
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