Problem

A number n is said to be special if the sum of its digits is divisible by 4.

For a given integer a, find a number n such that:

- n is a special number
- $n \geq a$
- n is minimum possible

Input format

- The first line contains an integer T denoting the number of test cases.
- For each test case:
    - The first line contains an integer a.

Output format

For each test case, print a number n that satisfies the above conditions in a new line.

Constraints

$1 \leq T \leq 10^5$
$1 \leq a \leq 10^3$

Sample Input		Sample Output	
2 432 99		435 103	

Time Limit: 1

Memory Limit: 256

Source Limit: