

## A. Dislike of Threes

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

Polycarp doesn't like integers that are divisible by 3 or end with the digit 3 in their decimal representation. Integers that meet both conditions are disliked by Polycarp, too.

Polycarp starts to write out the positive (greater than 0) integers which he likes:

1, 2, 4, 5, 7, 8, 10, 11, 14, 16, ... Output the  $k$ -th element of this sequence (the elements are numbered from 1).

### Input

The first line contains one integer  $t$  ( $1 \leq t \leq 100$ ) — the number of test cases. Then  $t$  test cases follow.

Each test case consists of one line containing one integer  $k$  ( $1 \leq k \leq 1000$ ).

### Output

For each test case, output in a separate line one integer  $x$  — the  $k$ -th element of the sequence that was written out by Polycarp.

### Example

input	Copy
10 1 2 3 4 5 6 7 8 9 1000	
output	Copy
1 2 4 5 7 8 10 11 14 1666	

### Codeforces Round #739 (Div. 3)

Finished

#### → Virtual participation

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#### → Problem tags

[implementation](#) [\\*800](#)

No tag edit access

#### → Contest materials

- Announcement 
- Tutorial (en) 



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