Easy math

Charlie and Johnny play a game. For every integer *X* Charlie gives, Johnny has to find the smallest positive integer *Y*, such that X * Y contains only 4's and 0's and starts with one or more 4's followed by zero or more 0's. (i.e.), 404 is an invalid number but 400 is a valid number.

If *a* is the number of 4's and *b* is the number of 0's, can you print the value of 2 * a + b.

Input Format
The first line contains an integer T. T lines follow, each line containing the integer X as stated above.

Output Format
For every X, print the output 2 * a + b in a newline as stated in the problem statement.

Constraints
$1<=T<=10^3$
$1<=X<=10^5$

Sample Input #00

```
3
4
5
80
```

Sample Output #00

```
2
3
4
```

Explanation
For the 1^{st} test-case, the smallest such multiple of 4 is **4** itself. Hence value of a will be 1 and and value of b will be 0. The required value of 2 * a+b is 2.

For the 2^{nd} test-case, **Y** = 8 and 40 is the minimum such multiple of 5. Hence value of a,b and 2 * a+b will be 1, 1 and 3 respectively.