Bomb

https://vjudge.net/problem/hdu-3555

The counter-terrorists found a time bomb in the dust. But this time the terrorists improve on the time bomb. The number sequence of the time bomb counts from 1 to N. If the current number sequence includes the sub-sequence "49", the power of the blast would add one point.
Now the counter-terrorist knows the number N. They want to know the final points of the power. Can you help them?

Input

The first line of input consists of an integer T (1 <= T <= 10000), indicating the number of test cases. For each test case, there will be an integer N (1 <= N <= 2^63-1) as the description.

The input terminates by end of file marker.

Output

For each test case, output an integer indicating the final points of the power.

Sample

Input	Output
3 1 50 500	0 1 15

Hint

From 1 to 500, the numbers that include the sub-sequence "49" are "49","149","249","349","449","490","491","492","493","494","495","496","497","498","499", so the answer is 15.