

Professional Stalker

Abid is a professional stalker. He stalks so many people on social media everyday. However he has other things to do, so he do not stalk infinite number of people everyday. To be more precise, he do not stalk more than 90 people in a day. (90 is the number of expected students in each classroom in IUT, Coincidence!). However, he can stalk any number of people between 0 to 90 inclusive in a day. An interesting fact is that there are 10 intervals,

[1,5],[6,10],[11,21],[22,34],[35,51],[52,62],[63,69],[70,76],[77,85],[86,90].

In this ten intervals each of them has the same possibility that the number of people Abid stalked on that day lies on that interval. Or more clearly, at the biggining of the day each of the interval has 10% of probability that the number of people abid stalked on that day is inside this limit.

Now, before you woke up in the morning, Abid already stalked x peoples on social media. You'll have to find the expected number of peoples he is going to stalk on that day after you wake up.

Note[Abid can not stalk fraction of a people]

Input

First line contains an integer $0 < t \leq 90$, number of testcases,

The next t lines contain one integer $x (0 \leq x \leq 90)$ each , number of peoples he already stakled before you woke up.

Output

For each testcase on each line print the expected number of peoples he is going to stalk on that day after you wake up.

Example

Input:

3

0

90

36

Output:

46

0

32