

Walk_2

John bought a brand new smart watch, this smart watch keeps record of his exercises, mainly, the number of steps John takes during the day. The watch has a feature called "exercise mode", when exercise mode is enabled the watch will "beep" each minute showing the total amount of steps taken since the "exercise mode" was enabled. To take advantage of this feature, John decided to exercise each morning before going to work, his morning exercise will be a walk through a road nearby where he can get fresh air and walk without the need to stop to cross streets.

Since John will perform the walk in the mornings, John decided to walk until he has taken at least 3000 steps after a watch "beep", but no more than 15 minutes to avoid having to rush to get to his office in time. John is very consistent with the amount of X steps he takes each minute, this means, John takes exactly X steps each minute, no more, no less.

Given the amount X of steps John takes each minute, help John find how many minutes he has to walk to finish his morning exercise.

Input

Input starts with a line containing a number of test cases. There is only one line corresponding to every test case containing a single integer number X ($1 \leq X \leq 3000$), the number of steps John takes in a minute.

Output

Every line of output contains a single integer number, representing how many minutes John has to walk to finish his morning exercise for successive test cases.

Przykład

Input	Output
4	15
1	10
300	2
2999	1
3000	