



## Problem A. Advanced multiplications

Source file name: advanced.c, advanced.cpp, advanced.java  
Input: Standard  
Output: Standard  
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Pepito is a really hyperactive kid, and to make it worse you have to take care of him today. You've tried to take him to the arcade machines, the movies and even an amusement park but he can't just stay in peace. You're tired because all the places you've gone so far and you finally came up with a wonderful idea. You're pretty good at math and designed a challenge for him. You remembered that he has been learning multiplication tables in school and asked Pepito:

If you write down all the multiplication tables beginning with 1 and finishing with 10, can you calculate the sum of all the multiplications?

Pepito took a notebook and while he was finishing to write number 1 table he realized about something and told the result: It's 3025. Believe it or not he came up with an answer before you could calculate the result and you want to know he made it.

### Input

The input will consist of multiple cases and will finish when you receive a 0, you should not process it. For each test case a line containing  $N$ , the limit for the multiplication table.

- $1 \leq N \leq 10^9$

### Output

For each test case output one line containing the last ten digits of the result.

### Example

Input	Output
1	1
2	9
10	3025
0	