Problem H
LCM

Input: standard input
Output: standard output
Time Limit: 2 seconds

All of you know about **LCM** (Least Common Multiple). For example **LCM** of **4** and **6** is **12**. **LCM** can also be defined for more than **2** integers. **LCM** of **2**, **3**, **5** is **30**. In the same way we can define **LCM** of first **N** integers. The **LCM** of first **6** numbers is **60**.

As you will see **LCM** will increase rapidly with **N**. So we are not interested in the exact value of the **LCM** but we want to know the last nonzero digit of that. And you have to find that effeciently.

Input

Each line contains one nonzero positive integer which is not greater than **1000000**. Last line will contain zero indicating the end of input. This line should not be processed. You will need to process maximum **1000** lines of input.

Output

For each line of input, print in a line the last nonzero digit of **LCM** of first **1** to **N** integers.

Sample Input | Output for Sample Input

Sample Input	Output for Sample Input
3	6
5	6
10	2
0	

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