Three Digits

Per is obsessed with factorials. He likes to calculate them, estimate them, read about them, draw them, dream about them and fight about them. He even has the value of 12! = 479 001 600 tattooed on his back. He noticed a long time ago that factorials have many trailing zeroes and also wrote a program to calculate the number of trailing zeroes. For example, 12! ends with 600, so it has 2 trailing zeroes. Now he wants to take one step further: look at the three digits right before the trailing zeroes. In the case of 12!, the last three digits before the trailing zeroes are 016.

Task

Given an integer n, find the last three digits before the trailing zeroes in $n!$. If there are fewer than three such digits, output all of them.

Input

A single line with one integer n ($1 \leq n \leq 10\,000\,000$).

Output

Output one line with the three digits before the trailing zeroes of $n!$. If there are fewer than three such digits, output all of them.

Sample Input 1

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5
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Sample Output 1

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12
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Sample Input 2

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14
```

Sample Output 2

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912
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