

# British Informatics Olympiad Final

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## Warm-up

The factorial of a positive integer  $n$ , denoted  $n!$ , is the product of all positive integers  $\leq n$ . In other words

$$n! = n \times n - 1 \times \dots \times 2 \times 1$$

Factorials grow very quickly; for example  $100!$  has over 150 digits.

Write a program that inputs a single integer  $m$  ( $1 \leq m \leq 1000000$ ) and outputs two integers, the rightmost non-zero digit of  $m!$  followed by the number of zeros after that digit.

### Sample Input

10

### Sample Output

8 2