1238 - Factorial Again!

Description

Mathew, an engineering freshman, is developing an original positional notation for representing integer numbers. He called it \A Curious Method" (ACM for short). The ACM notation uses the same digits as the decimal notation, i.e., 0 through 9. To convert a number A from ACM to decimal notation you must add k terms, where k is the number of digits of A (in the ACM notation). The value of the i-th term, corresponding the i-th digit ai, counting from right to left, is a_i * i!. For instance 719ACM is equivalent to 5310, since 7 * 3! + 1 * 2! + 9 * 1! = 53. Mathew has just begun studying number theory, and probably does not know which properties a numbering system should have, but at the moment he is only interested in converting a number from ACM to decimal. Could you help him?

Input specification

Each test case is given in a single line that contains a non-empty string of at most 5 digits, representing a number in ACM notation. The string does not have leading zeros. The last test case is followed by a line containing one zero.

Output specification

For each test case output a single line containing the decimal representation of the corresponding ACM number.

Sample input

```
719
1
15
110
102
0
```

Sample output

```
5 3
1
7
8
8
```

Hint(s)

Source	
Added by	**ejaltuna**
Addition date	2011-10-13 01:56:55.0
Time limit (ms)	1000
Test limit (ms)	1000
Memory limit (kb)	131072
Output limit (mb)	64
Size limit (bytes)	100000
Enabled languages	Bash C C# C++ Java Pascal Perl PHP Python Ruby Text