

12683 Odd and Even Zeroes

In mathematics, the factorial of a positive integer number n is written as $n!$ and is defined as follows:

$$n! = 1 \times 2 \times 3 \times 4 \times \dots \times (n - 1) \times n = \prod_{i=1}^n i$$

The value of $0!$ is considered as 1. $n!$ grows very rapidly with the increase of n . Some values of $n!$ are:

0!	=	1
1!	=	1
2!	=	2
3!	=	6
4!	=	24
5!	=	120
10!	=	3628800
14!	=	87178291200
18!	=	6402373705728000
22!	=	1124000727777607680000

You can see that for some values of n , $n!$ has odd number of trailing zeroes (eg $5!$, $18!$) and for some values of n , $n!$ has even number of trailing zeroes (eg $0!$, $10!$, $22!$). Given the value of n , your job is to find how many of the values $0!, 1!, 2!, 3!, \dots, (n - 1)!, n!$ has even number of trailing zeroes.

Input

Input file contains at most 1000 lines of input. Each line contains an integer n ($0 \leq n \leq 10^{18}$). Input is terminated by a line containing a '-1'.

Output

For each line of input produce one line of output. This line contains an integer which denotes how many of the numbers $0!, 1!, 2!, 3!, \dots, n!$, contains even number of trailing zeroes.

Sample Input

```
2
3
10
100
1000
2000
3000
10000
100000
```

200000
-1

Sample Output

3
4
6
61
525
1050
1551
5050
50250
100126