UVa Online Judge

12869 Zeroes

Factorial n is written as $n!$ and $n! = 1*2*3*\ldots*(n-1)*n$. For example $2! = 1*2 = 2$, $3! = 1*2*3 = 6$, $5! = 120$, $10! = 3,628,800$, etc. The function $fzero(n)$ denotes the number of trailing zeroes in $n!$ in decimal number system. For example $fzero(2) = 0$, $fzero(5) = 1$, $fzero(10) = 2$. Given the domain of the input parameter v of $fzero(v)$ function, you will have to find out how many different values of $fzero()$ are there within this range.

Input

The input file contains at most 50001 lines of inputs. Each line contains two positive integers low and $high$ $(0 < low \leq high \leq 9 * 10^{18})$. Input is terminated by a line containing two zeroes.

Output

For each line of input produce one line of output. This line contains an integer D, which denotes how many different values the function $fzero(v)$ can have if $(low \leq v \leq high)$.

Note:

Illustration for Sample input 1: as $1! = 1$, $2! = 2$, $3! = 6$, $4! = 24$, $5! = 120$, $6! = 720$, $7! = 5,040$, $8! = 40,320$, $9! = 362,880$, $10! = 3,628,800$, so $fzero(1) = 0$, $fzero(2) = 0$, $fzero(3) = 0$, $fzero(4) = 0$, $fzero(5) = 1$, $fzero(6) = 1$, $fzero(7) = 1$, $fzero(8) = 1$, $fzero(9) = 1$ and $fzero(10) = 2$. So in this range (1 to 10) there are three different values of $fzero(v)$: 0, 1 and 2.

Sample Input

```
1 10
1 3
0 0
```

Sample Output

```
3
1
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