A. 2-3-numbers

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

A positive integer is called a *2-3-integer*, if it is equal to $2^x \cdot 3^y$ for some non-negative integers x and y. In other words, these integers are such integers that only have 2 and 3 among their prime divisors. For example, integers 1, 6, 9, 16 and 108 — are 2-3 integers, while 5, 10, 21 and 120 are not.

Print the number of *2-3-integers* on the given segment $[l, r]$, i. e. the number of sich *2-3-integers* t that $l \le t \le r$.

Input

The only line contains two integers l and r ($1 \le l \le r \le 2 \cdot 10^9$).

Output

Print a single integer the number of *2-3-integers* on the segment $[l, r]$.

Examples

input
1 10
output
7

input
100 200
output
5

input
1 2000000000
output
326

Note

In the first example the *2-3-integers* are 1, 2, 3, 4, 6, 8 and 9.

In the second example the *2-3-integers* are 108, 128, 144, 162 and 192.