Problem S1: Cool Numbers

Problem Description
Eric likes interesting numbers like 64. It turns out that 64 is both a square and a cube, since $64 = 8^2$ and $64 = 4^3$. Eric calls these numbers *cool*.

Write a program that helps Eric figure out how many integers in a given range are cool.

Input Description
On the first line of input, you are given an integer a such that $a \geq 1$ and $a \leq 10^8$. On the second line of input, you are given an integer b such that $a \leq b$ and $b \leq 10^8$.

Output Description
The output should be the number of cool numbers in the range a to b (inclusively: that is, a and b would count as cool numbers in the range if they were actually cool).

Sample Input 1
```
1
100
```

Output for Sample Input 1
```
2
```

Sample Input 2
```
100
1000
```

Output for Sample Input 2
```
1
```