# CCC '09 S1 - Cool Numbers

**Time limit:** 1.0s **Memory limit:** 256M

### Canadian Computing Competition: 2009 Stage 1, Senior #1

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 Specification

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 $b \geq a$ and $b \leq 10^8$.

## Output Specification

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
```

## Sample Output 1

```
2
```

## Sample Input 2

```
100
1000
```

## Sample Output 2

```
1
```