Mysterious Number

Mysterious Number refers to a number which can be divisible by the number of distinct factors that it has. For instance, 1 (1 factor), 12 (6 factors) and 9 (3 factors) are Mysterious Numbers, but 7(2 factors) or 16 (5 factors) are not.

Given two integers *low* and *high*, please calculate the number of Mysterious Numbers between *low* and *high*, inclusive.

Input

For each test case, there are two integers *low* and *high* in one line separated by spaces. 1 ≤ *low* ≤ *high* ≤ 1,000,000

Output

Print out the number of Mysterious Numbers between *low* and *high*, inclusive.

Example

Input:
1 10
10 15

Output:
4
1