Abundant numbers

An abundant number has factors that sum to more than itself; thus 12 is abundant as 1+2+3+4+6=16>12; so is 42 as 1+2+3+6+7+14+21=54>42.

Actually this is an unusual property; write a program that given integers M and N computes the number of abundant numbers between M and N inclusive.

Input

One line of input featuring two integers M and N. $M<N<2^{31}$

Output

A single integer on its own line, representing the count of abundant numbers between M and N

Example

Input:
204 1007

Output:
201