

Problem: Palindromes

Nicholas Neverson was a student at Northlings Neverland Academy. As with any day-dreaming student, Nicholas was playing around with a Kaleidoscope one day instead of paying attention to the teacher. Since this was math class, his daydreams quickly turned to palindromic numbers. A palindromic number is any number which reads the same forwards and backwards.

He describes his vision to you at lunch: numbers which are palindromic in several bases at once. Nicholas wonders how many such numbers exist. You decide you can quickly code up a program that given a range and a number k , outputs the number of numbers palindromic in all bases j , $2 \leq j \leq k$, in that range.

Input

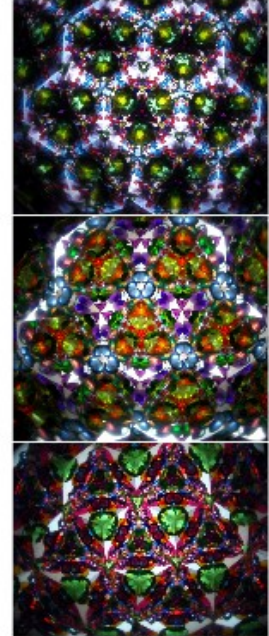
Input consists of three space-separated integers: a , b , and k . The input satisfies the following constraints:

$$0 \leq a \leq b \leq 2\,000\,000,$$

$$2 \leq k \leq 100\,000.$$

Output

Output the quantity of numbers between a and b inclusive which are palindromes in every base j , for $2 \leq j \leq k$.



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Sample Input 1

1 356 2

Sample Output 1

36

Sample Input 2

18 118 13

Sample Output 2

0