Problem C
Prime and Primechild

Time Limit: 2 seconds

Memory Limit: 512 megabytes

In this problem, you are playing with prime numbers. A prime number is defined as a natural number greater than 1 and not a product of two smaller natural number. An integer x is called **primechild** if it is a substring of a prime number.

An integer x is a substring of an integer y if it is equal to an integer derived from y by deleting zero or more consecutive digits of the most and least significant digits of y. For example, 124 is a substring of 124, 34124, 124983, 387812487, 124871248.

Task: You are given two integers l and h, along with a primechild p. Your task is to count the number of primes between the prime l^{th} and prime h^{th}, that contains the primechild p. For instance, for $l = 1, h = 10$, and $p = 9$, there are two primes 19 and 29 in between the 1^{st} prime 2 and the 10^{th} prime 29 that contain primechild 9.

Please note that the primechild p may include leading zeros, and a prime should be counted only once in case p occurs more than one time as its substring.

Input

The first line contains two integers l and h.

The second line contains the primechild p, which may have leading zeroes.

Constraints:

- $1 \leq l, h \leq 10^5$
- p is consisting of 1 to 6 digits.

Output

The output contains a single integers, which is the number of primes in the give range that contains the primechild p.

Sample Input	Sample Output
1 10 9	2
1 1000 00	10
500 1000 43	26