Omega

Time Limit – 2 seconds

The function Omega (n) counts the number of distinct prime factors of n where n is a positive integer. So

Omega (10) = 2

Omega (20) = 2

Omega (1) = 0

In this problem, you will be given three integers a, b and k. You will have to find out how many x are there where a <= x <= b and Omega (x) = k

Input :

Input starts with an integer T (≤ 100000), denoting the number of test cases. Each case contains three integers a, b and k. Here 1 <= a <= b <= 10000 and 0 <= k <= 10000

Output:

For each case, print the case number and the expected answer of the problem described. See the output format below.

Sample Input	Sample Output
2 1 1 0 20 20 2	Case 1: 1 Case 2: 1