Project Euler #152: Writing 1/2 as a sum of inverse squares

This problem is a programming version of Problem 152 from projecteuler.net

There are several ways to write the number $1/2$ as a sum of inverse squares using $distinct$ integers.

For instance, the numbers $2, 3, 4, 5, 7, 12, 15, 20, 28, 35$ can be used:

$$\frac{1}{2} = \frac{1}{2^2} + \frac{1}{3^2} + \frac{1}{4^2} + \frac{1}{5^2} + \frac{1}{7^2} + \frac{1}{12^2} + \frac{1}{15^2} + \frac{1}{20^2} + \frac{1}{28^2} + \frac{1}{35^2}$$

In fact, only using integers between 2 and 45 inclusive, there are exactly three ways to do it, the remaining two being: $2, 3, 4, 6, 7, 9, 10, 20, 28, 35, 36, 45$ and $2, 3, 4, 6, 7, 9, 12, 15, 28, 30, 35, 36, 45$.

How many ways are there to write the number $1/D$ as a sum of inverse squares using distinct integers between 2 and N inclusive?

Input Format

Each test file contains two lines. One the first line there is an integer D, on the second line there is an integer N.

Constraints

- $2 \leq N \leq 100$
- $2 \leq D$
- D is a product of digits of some natural number.
- The answer is always > 0

Output Format

Output a single number the answer to the problem.

Sample Input

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2
45
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Sample Output

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3
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