C. Matrix

You have a string of decimal digits s. Let's define $b_{ij} = s_i \cdot s_j$. Find in matrix b the number of such rectangles that the sum b_{ij} for all cells (i, j) that are the elements of the rectangle equals a in each rectangle.

A rectangle in a matrix is a group of four integers (x, y, z, t) $(x \leq y, z \leq t)$. The elements of the rectangle are all cells (i, j) such that $x \leq i \leq y, z \leq j \leq t$.

Input

The first line contains integer a $(0 \leq a \leq 10^9)$, the second line contains a string of decimal integers s $(1 \leq |s| \leq 4000)$.

Output

Print a single integer — the answer to a problem.

Please, do not write the `%lld` specifier to read or write 64-bit integers in C++. It is preferred to use the `cin`, `cout` streams or the `%I64d` specifier.

Examples

input
10 12345
output
6

input
16 4398738936934956234982639847 65
output
40