Arithmetic sequence

Given an arithmetic sequence a, a + d, a + 2*d, ..., a + n*d.

Request

Count the number of digit x appearing in the given sequence.

Input

- A line containing a, d, n, x.

Output

- The result found.

Example

Input:
10 5 2 0

Output:
2

Limitations

- $1 \leq a, n \leq 10^9$.
- $1 \leq d \leq 20,000$.