Problem B. Biggest Set Ever

Input file:	*standard input*
Output file:	*standard output*
Time limit:	3 seconds
Memory limit:	512 mebibytes

A set of nonnegative integers is *fine* if and only if all numbers in the set are less than T and their sum is equivalent to *rem* modulo n. Your task is to find the number of different fine sets.

Input

The first line of the input contains space-separated integers n and *rem* ($0 \le rem < n \le 10^4$). The second line of the input contains a single integer T ($1 \le T \le 10^{100\,000} - 1$).

Output

Print the number of different fine sets. As this number can be **really** large, you should print it modulo prime number 998 244 353.

Examples

standard input	standard output
3 2 5	8
1 0 20	1048576

Note

In the first sample, we can include or exclude numbers 0 and 3 freely, it doesn't change the remainder. From numbers $\{1, 2, 4\}$ there are two *fine* sets: $\{2\}$ and $\{1, 4\}$. So the answer is $2 \cdot 2 \cdot 2 = 8$.

In the second sample, any subset of $\{0, 1, \ldots, 19\}$ is fine, hence, the answer is $2^{20} = 1\,048\,576$.