Task 1: NumberGame

You are given 2 positive integers A and B. A sequence of numbers is produced consisting of the multiples of A and B.

You are tasked to print out the value N^{th} value in the sequence when called for.

Input format

Your program must read from standard input.

The first line consists of an integer T, denoting the number of test cases.

The second line contains three integers A, B, and N^{th}.

Output format

Your program must print to standard output.

Your program should print one line with a single positive integer, representing the value of position N^{th}.

Constraints

The maximum execution time on each instance is 1.0s.

For all subtasks:
$$1 \leq T \leq 10^5$$
$$0 \leq A, B \leq 10^4$$
$$1 \leq N \leq 10^9$$

Your program will be tested on sets of input instances as follows:

Subtask	Marks	Limits
1	10	$1 \leq A, B \leq 10$, $N = 10$
2	30	$1 \leq A, B \leq 100$
3	60	No further restrictions

Sample Test Case 1

This test case is valid for all subtasks.

Input	Output
1 2 3 10	15

Explanation

Multiples of 2 and 3 are [2, 3, 4, 6, 8, 9, 10, 12, 14, 15]. The value of the 10th position is 15.

Sample Test Case 2

This test case is valid for all subtasks.

Input	Output
1 4 5 10	25

Explanation

Multiples of 2 and 3 are [4, 5, 8, 10, 12, 15, 16, 20, 24, 25]. The value of the 10th position is 25.