Problem B
Divisibility 2

Time limit: 1 second
Memory limit: 2048 megabytes

Problem Description

Given two positive integers a and b, we create an ascending array of positive integers that are divisible by either a or b.

For example, if $a = 2$ and $b = 3$, the initial terms of the list would be: $2, 3, 4, 6, 8, 9, 10, 12, 14, \ldots$. Your task is to find the k-th term in this array.

Input Format

The first line of the input contains an integer t denoting the number of testcases. Each of the following t lines contains three positive integers a, b and k.

Output Format

For each testcase, output the k-th term of the array in one line.

Technical Specification

- $1 \leq t \leq 1000$
- $1 \leq a < b \leq 10^9$
- $1 \leq k \leq 10^{18}$
- It is guaranteed that the answer would not exceed 10^{18}.

Scoring

1. (6 points)
   - $1 \leq a, b \leq 10^4$
   - $1 \leq k \leq 10^4$
   - It is guaranteed that the answer does not exceed 10^4.
2. (11 points) $\gcd(a, b) = 1$
3. (3 points) No additonal constraints.

Sample Input 1

```
13
1 2 1
1 2 2
2 3 1
2 3 2
2 3 3
2 3 4
3 6 1
3 6 2
37 61 100
42 91 123
9999 10000 1
9999 10000 2
1 10000 10000
```

Sample Output 1

```
1
2
2
3
4
6
3
6
2331
3731
9999
10000
10000
```

Sample Input 2

```
12
2 3 1
2 3 4
2 3 100
48 763 487634876348763
5 10 3
9 12 9
9 12 10
9 12 11
5 7 19
759208302 883019287 883271940
728941278 218903020 383919937
1 2 10000000000000000000
```

Sample Output 2

```
2
6
150
22048320631354416
15
54
60
63
60
360572190497677566
64632054435537680
10000000000000000000
```