Introduction to Algorithms, Fall, 2023 Programming Homework 2

Problem A1 Divisibility (Easy Version)

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, but not both simultaneously.

For example, if a=2 and b=3, the initial terms of the list would be: 2,3,4,8,9,10,14,15,16,...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

- $1 \le t \le 1000$
- $1 \le a < b \le 10000$
- $1 \le k \le 10000$
- It is guaranteed that the answer would not exceed 10000.

Introduction to Algorithms, Fall, 2023 Programming Homework 2

Sample Input 1



Sample Output 1

```
1
3
2
3
4
8
3
9
2368
3948
9999
10000
```