

# Peculiar Number

Ajoy has got some spare time today. He is using this spare time to think of a particular kind of number.

He calls it 'Peculiar Number'.

A peculiar number is define by three integers A, B and C and has the following characteristics.

- 1) If a number is a multiple of A but not a multiple of B then it is a peculiar number.
- 2) If a number is a multiple of both A and B then it will be a peculiar number only if it is also a multiple of number C. Otherwise it is not a peculiar number.

Now, Ajoy is trying to find the Nth peculiar number for a fixed A, B and C.

But Ajoy does not have all day. So he needs your help to solve the problem.

## INPUT:

First line of the input contains four integers A, B , C and M where  $(1 \leq A, B, C \leq 10^3)$  and  $(1 \leq M \leq 10^5)$  constraints hold.

M denotes the number of queries.

Each of the next M line contains an integer N  $(1 \leq N \leq 10^9)$ .

## OUTPUT:

For each query, print the Nth peculiar number.

### Sample Input#1:

3 2 4 3

1

2

3

### Sample Ouput#1:

3

9

12

### Sample Input#2:

983 991 997 3

323233123

2131234

1000000000

### Sample Ouput#2:

318058785019

2097116472

983991931538

( set by: Nashir Ahmed )