

Closest Number

You are given 3 numbers a , b and x . You need to output the multiple of x which is closest to a^b . If more than one answer exists, display the smallest one.

Input Format

The first line contains T , the number of testcases.

T lines follow, each line contains 3 space separated integers (a , b and x respectively)

Constraints

$$1 \leq T \leq 10^5$$

$$1 \leq x \leq 10^9$$

$$0 < a^b \leq 10^9$$

$$1 \leq a \leq 10^9$$

$$-10^9 \leq b \leq 10^9$$

Output Format

For each test case, output the multiple of x which is closest to a^b

Sample Input 0

```
3
349 1 4
395 1 7
4 -2 2
```

Sample Output 0

```
348
392
0
```

Explanation 0

The closest multiple of 4 to 349 is 348.

The closest multiple of 7 to 395 is 392.

The closest multiple of 2 to 1/16 is 0.