

Problem H

Arithmetic

Time Limit: 1 second

Vivian will be awarded the most beautiful lantern in the Mid Autumn Festival if she can quickly win the Arithmetic Quiz for Smart Kids.

Vivian is given three positive integers A , B , and C . She should answer quickly if she can create a new positive integer K with the three given numbers using common arithmetic operators, including $+$ (add), $-$ (subtract), \times (multiply), and $/$ (divide), and parentheses?



Vivian can freely put the three numbers A , B , and C in any order. Parentheses, including $($ and $)$, can be used to group numbers and operations.

Input

The input consists of multiple test cases. The first line of input contains an integer T ($1 \leq T \leq 100$), the number of test cases. Each of the following T lines contains a test case. Each test case consists of four positive integers A , B , C , and K ($0 < A, B, C < 10$ and $1 < K < 30$)

Output

The output should contain the solutions to all the test cases, in the order of the test cases in the input. There should NOT be any blank line in the output. For each test case, display **Possible** if Vivian can find a way to create K from A , B , and C . Otherwise, display **Impossible**.

Sample Input

Sample Output

4	Possible
2 6 1 12	Possible
1 2 3 4	Impossible
7 5 5 5	Possible
2 5 8 20	

Explanation:

$A = 2, B = 6, C = 1, K = 12$:

As $2 \times 6 \times 1 = 12$, the result is **Possible**.

$A = 1, B = 2, C = 3, K = 4$:

As $2 + 3 - 1 = 4$, the result is **Possible**.

$A = 7, B = 5, C = 5, K = 5$:

As we cannot find any way to create $K = 5$ with $A = 7$, $B = 5$, and $C = 5$, the result is **Impossible**.

$A = 2, B = 5, C = 8, K = 20$:

As $(5 / 2) \times 8 = 20$, the result is **Possible**.