24 Game

Input File: 24game.txt

24 Game is a classic math game where, given four positive integers, you must use addition, subtraction, multiplication, division, and/or parentheses to produce 24 from all four numbers. For example, given 2, 3, 4, and 5, it is possible to produce 24 by doing 2 * (3 + 4 + 5). Your job is to write a program that determines whether it is possible to create 24 from four input numbers.

Input:

The first line contains an integer N. The following N lines each contain four space-separated, positive integers.

Output:

If it is possible to form 24 from the numbers using addition, subtraction, multiplication, division, and parentheses, print Possible. If not, print Not Possible.

Example Input:

Example Output:

Possible Not Possible Not Possible Possible