

## Momo's Homework II

### 問題描述：

Momo learns a lot about geometry, the lesson today is about “line intersection”. The problem is that in a triangle ABC, there is a point E on line AC, then we draw the line from B to E. There is also another point F on line AB, we draw another line from C to F. Assume line BE and line CF intersect at point K. Momo wants to know, if she draws a line from A to K and keep going on, finally the line would intersect with line BC on point D. What is the coordinate of point D?

### 輸入說明：

Input begins with an integer  $T (1 \leq T \leq 20000)$ , the number of test case. Each test case would be in the following format.

Line 1 :  $x_1 y_1 x_2 y_2 x_3 y_3$  : six integers, the coordinate of the three points of triangle ABC.  $A=(x_1, y_1)$ ,  $B=(x_2, y_2)$ ,  $C=(x_3, y_3)$ .  $0 \leq x, y \leq 10000$

Line 2 :  $a b$  : two integers, the proportion of line AE and line EC,  $1 \leq a, b \leq 10000$

Line 3 :  $c d$  : two integers, the proportion of line AF and line FB,  $1 \leq c, d \leq 10000$

You can assume that the three points would form a rectangle.

### 輸出說明：

Each test case outputs one line. Output the coordinate of point D in this format: “ $(a/b, c/d)$ ”, where  $\gcd(a, b)$  and  $\gcd(c, d)$  should be 1. If the coordinate is 0 please output 0/1. See sample input and output for a clear view.

### 範例：

Sample Input:	Sample Output:
2 0 5 0 0 5 0 1 1 1 2 1 4 3 6 7 9 2 4 3 6	(10/3, 0/1) (5/1, 15/2)