

Crossing Lines

ZPRAC-16-17-Lab2

[40 points]

Prabuddha, a math geek, has recently developed a liking towards straight lines. Help him in solving the following problem.

You are given equations of two lines in a 2-D plane:

$$a_1x + b_1y + c_1 = 0$$

$$a_2x + b_2y + c_2 = 0$$

Write a program to find the point of intersection of the two lines.

Input:

First line of the input contains 3 space separated real numbers a_1 , b_1 and c_1 for line 1.

Second line of the input contains 3 space separated real numbers a_2 , b_2 and c_2 for line 2

All input numbers lie in the range $[-10^3, 10^3]$.

Output:

Output the X and Y coordinates of the point of intersection upto 2 decimal points in the given format (x and y are the coordinates of intersection)

Point of intersection is : (x,y)

Note: You can assume that the given lines intersect at a unique point.

Example:

Input:

1 -1 0

1 1 1

Output:

Point of intersection is : (-0.50,-0.50)