Set A

1. Given the coefficients a, b and c of the quadratic equation as (floating point numbers) $ax^2+bx+c=0$, find the solution(s) of the equation. [Hint: 'sqrt' function can be used to find the square root of a number]

Sample Input(s)	**Corresponding Output(s)**
1 -5 6	2.000 3.000
1 2 3	
2 -20 50	5.000

2. Given four points P1 (x1, y1), P2 (x2, y2), P3 (x3, y3) and P4 (x4, y4). Find two equations of line using these four points. Line1, L1 can be formed using P1 and P2 and Line2, L2 can be formed using P3 and P4. Now, determine the following:

a. Whether L1 and L2 are perpendicular to each other
b. Whether L1 and L2 are parallel to each other
c. Whether L1 intersects with L2
d. Whether L1 and L2 are same line

You will be given 8 floating point numbers as input for the values of x1, y1, x2, y2, x3, y3, x4, y4
Your program should output the status of these two lines.

Sample Input(s)	**Corresponding Output(s)**
5 5 65 35 25 40 40 10 5 5 65 35 25 40 45 50 5 5 65 35 25 15 55 30 3 0 3 55 5 55 5 -15 3 0 3 55 5 5 65 35	Perpendicular Parallel Same Line Parallel Intersects