Problem – 1

Problem statement:
Given n points in 2-dimensional plane, find the number of pairs of points (p_1,p_2) such that slope of line between points p_1 and p_2 is 1.

Note: pair of points (p_1,p_2) and (p_2,p_1) is same.

Input: The first line contains integer n – the number of 2-D points. Following n lines contains two space seperated integers x_i and y_i .

Output:
A single integer denoting the required result.

Constraints:
$1 <= n <= 500,000$
$-10^9 <= x_i,y_i <= 10^9$

Use Template Code : https://pastebin.com/Lj7BTyJT

Sample Input	Sample Output
5 1 1 2 2 3 3 3 9 5 11	4

Explanation :
The pairs of points which gives slope 1 are:
(1,1) and (2,2)
(1,1) and (3,3)
(2,2) and (3,3)
(3,9) and (5,11)