line([[X1,Y1],[X2,Y2]]).

line([[1,1],[2,2]]).

Polygon([[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]])

combineTwoPolygons([[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]], [[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]]).

checkPolygonIntersection([[[1,1],[3,6]], [[3,6],[4,7]], [[4,7],[1,1]]], [[[5,2],[8,7]], [[8,7],[4,2]], [[4,2],[5,2]]]).

lineNotIntersect([[1,1],[3,6]],[[3,6],[4,7]]).

isConnected([[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]])

lengthL([1,2,3,4,5,5,6,9],N), open('out.txt', write, Out), write(Out,N),close(Out).

findall(A,line(A),X).

findall(A,line(A),X),open('line.txt', write, Out), write(Out,A),close(Out).

adjacent([[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]], [[[5,7],[8,9]], [[8,9],[3,3]], [[3,3],[4,4]], [[4,4],[5,7]]]).

adjacent([[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]], [[[5,7],[8,9]], [[8,9],[3,3]], [[3,3],[4,4]], [[4,4],[5,7]]]).

adjacent([[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]], A).

prove(plus1(A,B,[1,2],5).

prove(plus1([1,2,3,4],[4],A,5).

prove(plus1([1,2,3,4],[4],A,5).

multiplyRow([6,7,8],6,P,S).

multiplicatn([1,2,3],[1,1],W).

multiplicatn(B,A,[1,2]).

// get set of polygons and add all the coordinates of the polygons into one list

housePlanLineList([[[[1,2],[3,4]],[[5,6],[7,8]]], [[[2,1],[4,3]],[[6,5],[8,7]]]], L).

interconnected([[[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]], [[[5,7],[8,9]], [[8,9],[3,3]], [[3,3],[4,4]], [[4,4],[5,7]]]], [[[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]], [[[5,7],[8,9]], [[8,9],[3,3]], [[3,3],[4,4]], [[4,4],[5,7]]]]).

interconnected([[[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]], [[[5,7],[8,9]], [[8,9],[3,3]], [[3,3],[9,4]], [[9,4],[5,7]]]], [[[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]], [[[5,7],[8,9]], [[8,9],[3,3]], [[3,3],[9,4]], [[9,4],[5,7]]]]).

writeHousePlanMy.

| j.

| k.

| o.

| stop.

Code to check duplicates - > is\_set([1,2,3]).

findArea([[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]], A).

triangle ->

interconnected([[[[1,1],[2,2]], [[2,2],[2,1]], [[2,1],[1,1]]], [[[2,2],[3,2]], [[3,2],[2,1]], [[2,1],[2,2]]]], [[[[1,1],[2,2]], [[2,2],[2,1]], [[2,1],[1,1]]], [[[2,2],[3,2]], [[3,2],[2,1]], [[2,1],[2,2]]]]).

isAdjacentMemberMy([[[1,1],[2,2]], [[2,2],[2,1]], [[2,1],[1,1]]], [[[[1,1],[2,2]], [[2,2],[2,1]], [[2,1],[1,1]]], [[[2,2],[3,2]], [[3,2],[2,1]], [[2,1],[2,2]]]]).

adjacent([[[1,1],[2,2]], [[2,2],[2,1]], [[2,1],[1,1]]] , [[[2,2],[3,2]], [[3,2],[2,1]], [[2,1],[2,2]]]).

isAdjacentMemberMy([[[1,1],[2,2]], [[2,2],[2,1]], [[2,1],[3,2]], [[3,2],[1,1]]], [[[[1,1],[2,2]], [[2,2],[2,1]], [[2,1],[3,2]], [[3,2],[1,1]]], [[[2,2],[3,2]], [[3,2],[2,1]], [[2,1],[5,2]], [[5,2],[2,2]]]]).

orderBoundary([[[1,1],[2,2]], [[4,5],[6,4]], [[2,2],[4,5]], [[6,4],[1,1]]], [[[1,1],[2,2]], [[4,5],[6,4]], [[2,2],[4,5]], [[6,4],[1,1]]], R).

getPolygonPoints([[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]], L).

L = [[1, 1], [2, 2], [3, 3], [4, 4]] ;

checkPolygonRepeat ([[[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]], [[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]]], [[[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]], [[[1,1],[2,2]], [[2,2],[3,3]], [[3,3],[4,4]], [[4,4],[1,1]]]]).

checkPolygonRepeat([[[[1,1], [1,2]], [[1,2], [2,1]], [[2,1], [1,1]]] ,[[[1,1], [1,2]], [[1,2], [2,2]], [[2,2], [1,1]]] ,[[[1,2], [1,1]], [[1,1], [2,1]], [[2,1], [1,2]]] ,[[[1,2], [1,1]], [[1,1], [2,2]], [[2,2], [1,2]]] ,[[[1,1], [2,1]], [[2,1], [1,2]], [[1,2], [1,1]]] ,[[[1,1], [2,1]], [[2,1], [2,2]], [[2,2], [1,1]]] ,[[[1,1], [2,2]], [[2,2], [1,2]], [[1,2], [1,1]]] ,[[[1,1], [2,2]], [[2,2], [2,1]], [[2,1], [1,1]]]], [[[[1,1], [1,2]], [[1,2], [2,1]], [[2,1], [1,1]]] ,[[[1,1], [1,2]], [[1,2], [2,2]], [[2,2], [1,1]]] ,[[[1,2], [1,1]], [[1,1], [2,1]], [[2,1], [1,2]]] ,[[[1,2], [1,1]], [[1,1], [2,2]], [[2,2], [1,2]]] ,[[[1,1], [2,1]], [[2,1], [1,2]], [[1,2], [1,1]]] ,[[[1,1], [2,1]], [[2,1], [2,2]], [[2,2], [1,1]]] ,[[[1,1], [2,2]], [[2,2], [1,2]], [[1,2], [1,1]]] ,[[[1,1], [2,2]], [[2,2], [2,1]], [[2,1], [1,1]]]]).

checkPolygonRepeat([[[[1,1], [1,2]], [[1,2], [2,1]], [[2,1], [1,1]]],[[[1,2], [1,1]], [[1,1], [2,1]], [[2,1], [1,2]]] ,[[[1,1], [2,2]], [[2,2], [2,1]], [[2,1], [1,1]]]], [[[[1,1], [1,2]], [[1,2], [2,1]], [[2,1], [1,1]]],[[[1,2], [1,1]], [[1,1], [2,1]], [[2,1], [1,2]]] ,[[[1,1], [2,2]], [[2,2], [2,1]], [[2,1], [1,1]]]]).

centroidX([[[1,1], [1,2]], [[1,2], [2,1]], [[2,1], [1,1]]],X).