Problem J
Convex Quadrilateral
Time limit: 1 second

A quadrilateral is a polygon in Euclidean plane geometry with four edges and four vertices. Quadrilaterals are either simple (not self-intersecting), or complex (self-intersecting, or crossed). Simple quadrilaterals are either convex or concave. This problem focuses on convex quadrilateral. A convex quadrilateral is a convex that satisfied all interior angles less than 180 degrees and all the diagonals lie within the quadrilateral.
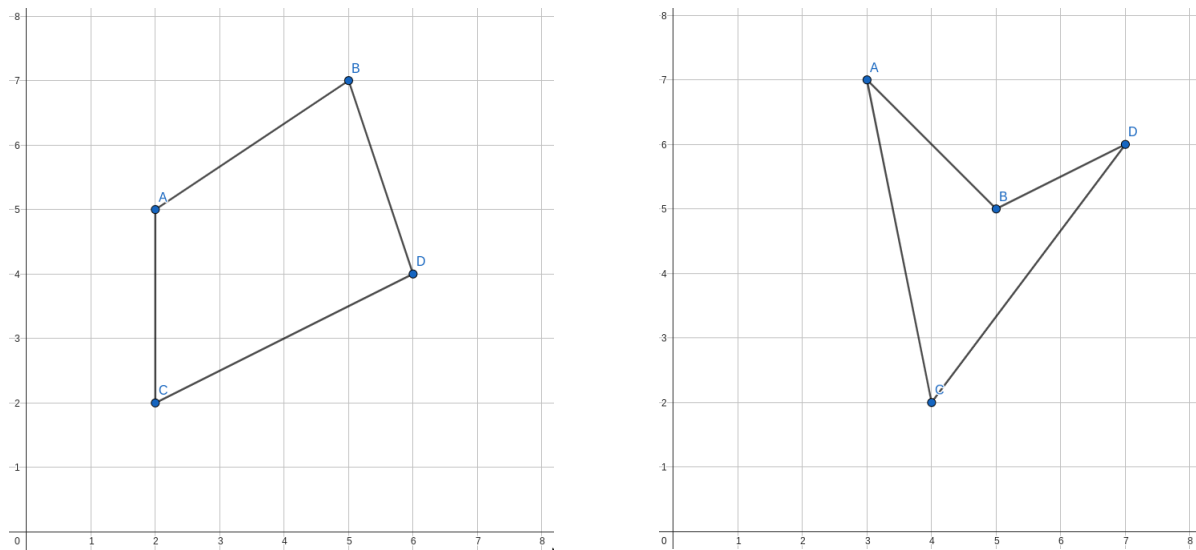

Figure 1. Left quadrilateral is a convex quadrilateral, right quadrilateral is not convex quadrilateral

Given 4 points in 2D space, can they be the 4 vertices of a convex quadrilateral?

Input

The first line contains a single integer T – the number of test cases.

The first line of each case contains 8 integers $x_1, y_1, x_2, y_2, x_3, y_3, x_4, y_4$ – coordinates of 4 points.

Output

For each test case, print `yes` if these point are the 4 vertices of a convex quadrilateral and `no` otherwise.

Constraints

$1 \le T \le 100$.
$0 \le x_1, y_1, x_2, y_2, x_3, y_3, x_4, y_4 \le 10^9$.

Sample Input 1	Sample Output 1
2 2 2 2 5 5 7 6 4 3 7 4 2 5 5 7 6	yes no

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