Here are the coordinates of some quadrilaterals, but in each case one coordinate is missing! The coordinates are given going round each quadrilateral in an anti-clockwise direction.

1. $(2,11),\ (0,9),\ (2,7),\ (?,?)$
2. $(3,7),\ (3,4),\ (8,4),\ (?,?)$
3. $(18,3),\ (16,5),\ (8,5),\ (?,?)$
4. $(13,12),\ (15,14),\ (12,17),\ (?,?)$
5. $(7,14),\ (6,11),\ (7,8),\ (?,?)$
6. $(15,9),\ (19,9),\ (16,11),\ (?,?)$
7. $(11,3),\ (15,2),\ (16,6),\ (?,?)$
8. $(9,16),\ (2,9),\ (9,2),\ (?,?)$

The quadrilaterals are all symmetrical. This may be rotational or line symmetry or both. Can you work out what the missing coordinates are if you know they are all positive? Is there more than one way to find out?

Now plot those eight missing coordinates on a graph like this. What shape do they make and what sort of symmetry does it have?

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