'PROPERTIES OF SHAPE' MYSTERY

Complete the 3 \times 3 grid below with one shape drawn in each grid square.

Use the hint-cards to decide which shape (among the 12 possible shapes) is in which square.

Hint cards

The shape in the top left hand corner has 3 lines of symmetry.

There is a square directly above the hexagon.

The shape to the left of the small square has 2 lines of symmetry and 4 right angles.

Two shapes each have 4 lines of symmetry.

Each row and column contains 2 quadrilaterals.

Each of the shapes in the top right and bottom left hand corners has one line of symmetry.

5 of the quadrilaterals include at least one pair of parallel sides.

One shape has no straight sides and one centre of rotation.

4 of the shapes are regular with straight sides.

5 shapes have all sides equal in length.

One of the shapes has one line of symmetry and its diagonals cut at 90°.

4 quadrilaterals have diagonals which cut at 90°.

Shapes in the middle column contain a total of 14 lines of symmetry.

Shapes in the middle row and in the right hand column contain an infinity of lines of symmetry.

No shape has more than 6 vertices.

Glossary: an edge or a side of a shape is a line or one of the lines which define the outline of that shape. It can be a straight line.

