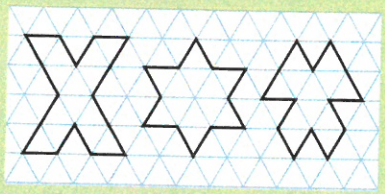
TARGET To draw 2-D shapes according to their properties and identify lines of symmetry.

A

Use triangular paper.

1. Copy these shapes and draw on any lines of symmetry.



2. Draw and label:
   a) an equilateral triangle
   b) a regular hexagon.

   Draw on any lines of symmetry.

Use squared paper.

3. Draw a quadrilateral:
   a) which has two pairs of equal sides but is not a rectangle
   b) which has four equal sides but is not a square.

   Draw on any lines of symmetry.

4. Draw different triangles and quadrilaterals on grids of 4 squares.

   Examples

isosceles triangle

quadrilateral

   Label each shape and draw on any lines of symmetry as in the examples above.

B

Use triangular paper.

1. Draw and label a quadrilateral which is:
   a) symmetrical
   b) not symmetrical.

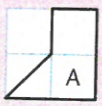
2. Draw and label a pentagon which is:
   a) symmetrical
   b) not symmetrical.

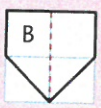
3. Draw and label a hexagon which is:
   a) symmetrical
   b) not symmetrical.

4. Draw on all the lines of symmetry in the shapes you have drawn.

5. Use squared paper. Draw different pentagons using the intersections of grids of 4 squares.

   Examples





6. For each pentagon:
   a) draw on any lines of symmetry
   b) describe its features.

   Example

   Shape B has 2 pairs of equal sides, 3 right angles and 1 line of symmetry.

C

Use triangular paper.

1. Draw:
   a) a regular hexagon
   b) different hexagons which are symmetrical but not regular
   c) different hexagons which are not symmetrical.

   Draw on any lines of symmetry.

2. Investigate the different heptagons and octagons you can draw. Draw on any lines of symmetry. Label and describe the features of each shape.

3. Use squared paper. Using the intersections of grids of 4 squares, draw different hexagons. Draw on any lines of symmetry and describe the features of each shape.

4. Using the intersections of grids of 4 squares:
   a) how many different heptagons is it possible to draw
   b) how many different octagons is it possible to draw?

   Are any of the shapes symmetrical?