1 a  Draw this shape after rotating it 90° clockwise (\(\frac{1}{4}\) turn) about the black dot.

(2 marks)

b  How many more 90° clockwise turns would you need to make to return the shape back to its starting point?

___________  (1 mark)
2. Describe the single translation which takes shape E to shape F.

__________________________________________________________________________

(2 marks)
3 This triangular tile can be used to make a tessellation.
Translate, reflect or rotate the tile into many new positions and draw as much of the tessellation as you can.

4 Draw all the lines of symmetry of these shapes.
5  a  Reflect these two shapes in the dotted lines.

b  Reflect triangle PQR in the dotted line.
   Label the corners of the image P', Q' and R'.
6

a Draw all the lines of symmetry of shapes A and B. (1 mark)

b Write the order of rotational symmetry of shapes C and D.

C has order ______

D has order ______ (1 mark)
ANSWERS

1 a

b 3

2 Translation 4 squares left and 3 squares down.

3 Shape correctly tessellated across the grid.

4 (4^{th} shape is a parallelogram, with no lines of symmetry)
5 a

(2 marks)

b

(2 marks)

6 a

(1 mark)

b C has order 3
D has order 5

(1 mark)