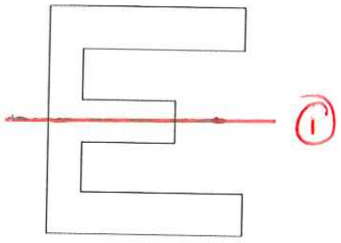
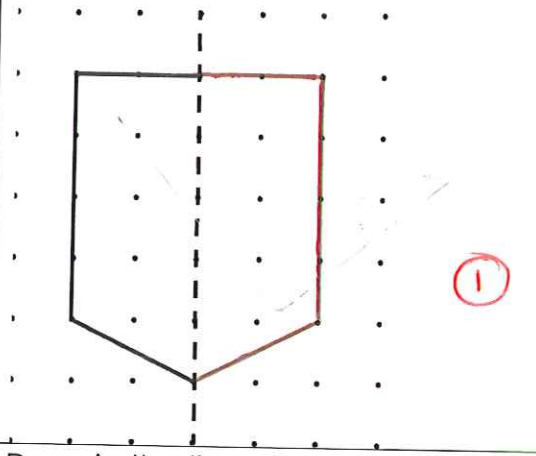
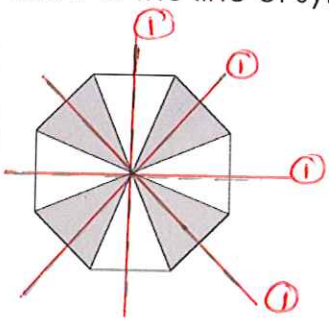
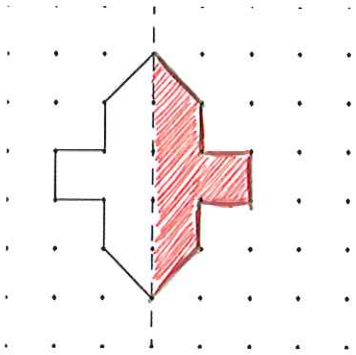
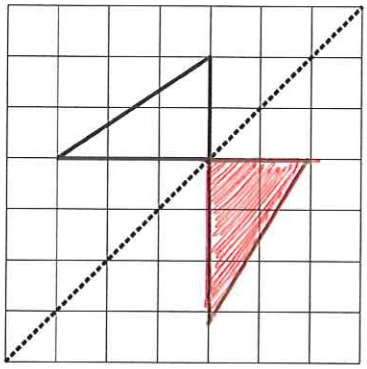
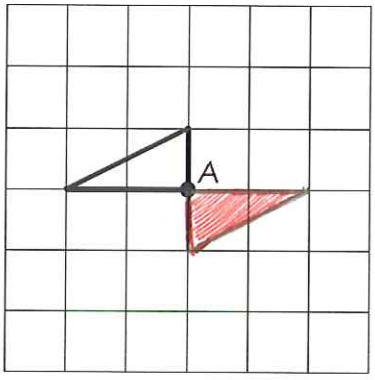
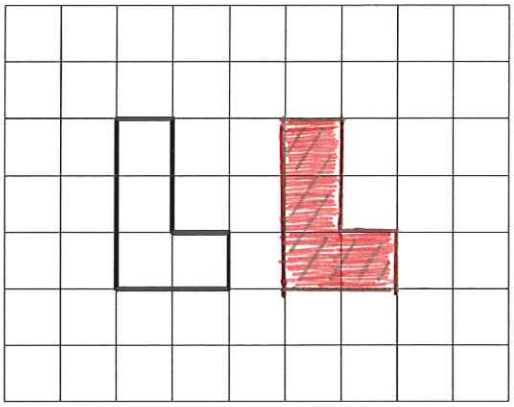
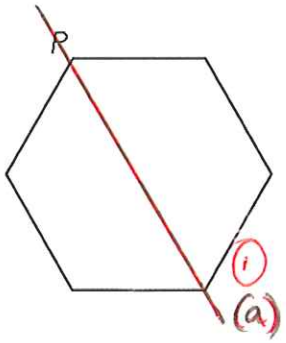
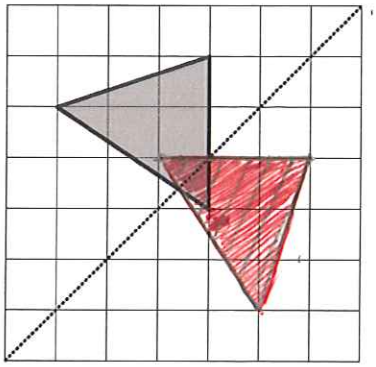
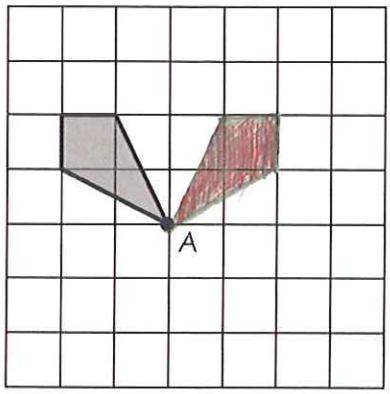
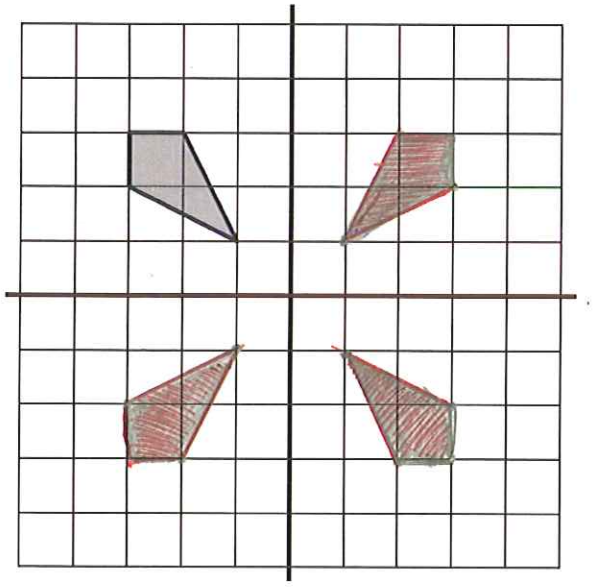
Topic test: Transformations

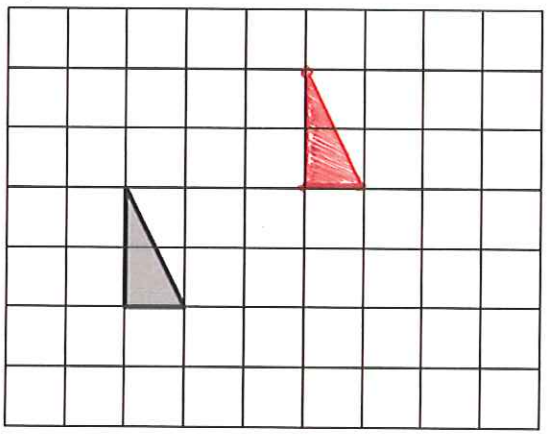
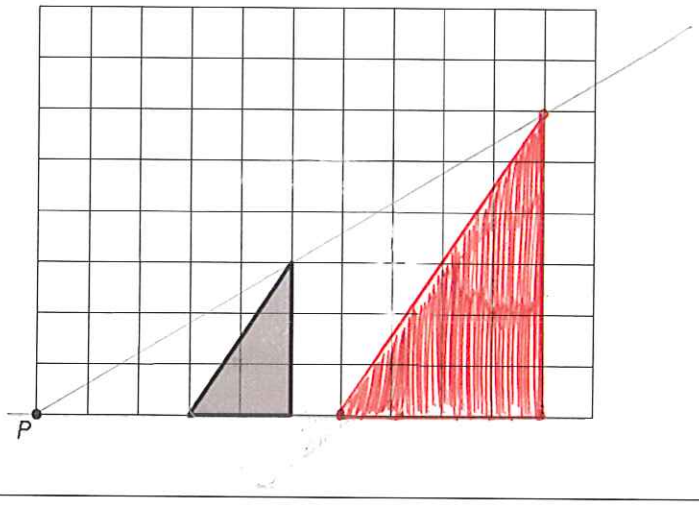
Answers – all levels. (boundaries at the end).

Q	Assessment Skill	marks	LEVEL
	Draw in a line of symmetry 	1	2
	Draw in the reflection of this shape 	1	2
	Draw in the line of symmetry 	4	3

	Draw in the reflections  (1)	1	4
	Draw in the reflection in the line of symmetry  (1)	1	4
	Draw the rotation of the triangle by 180^0 about point A  correct rotation (2) Δ in the right order anywhere on the grid (1)	2	4

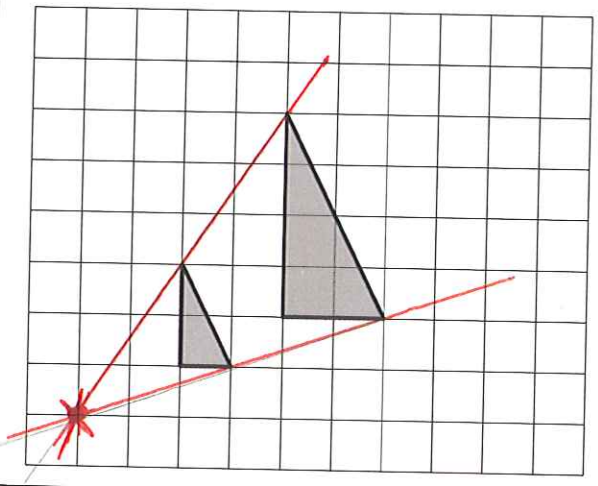
	Draw the translation of the shape by 3 squares to the right  (1)	1	4
	A regular hexagon is drawn below  (1) (a) a) Draw a line of symmetry which passes through the point P. b) How many lines of symmetry does a regular hexagon have? 6 (1) c) What is the order of rotational symmetry of a regular hexagon? 6 (1)	1 1 1	5

	Draw the reflections of the triangle in the line of symmetry  Correct reflection (2) attempt made to cross over the line of symmetry. or reflection in right Δ anywhere (1)	2	5
	Draw the rotation of the kite by 90⁰ clockwise about point A  rotation - correct (2) rotation → anywhere on the grid (1)	2	5
	On the grid below, show the kite reflected in two lines of symmetry.  B2	2	5

	Draw the translation of the triangle 3 squares to the right and 2 squares up 	2	5
	Enlarge the shape by scale factor 2, Using point *P* as a the centre of enlargement  	2	6

Look at the square grid below.
The diagram shows an enlargement of scale factor 2.

Find the centre of enlargement.
Mark the centre of enlargement with a cross.

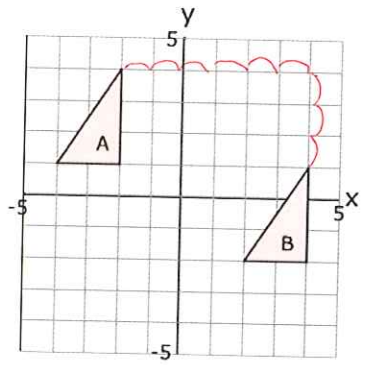


rays (1)
COE (1)

2

6

Describe the transformation from shape A to shape B

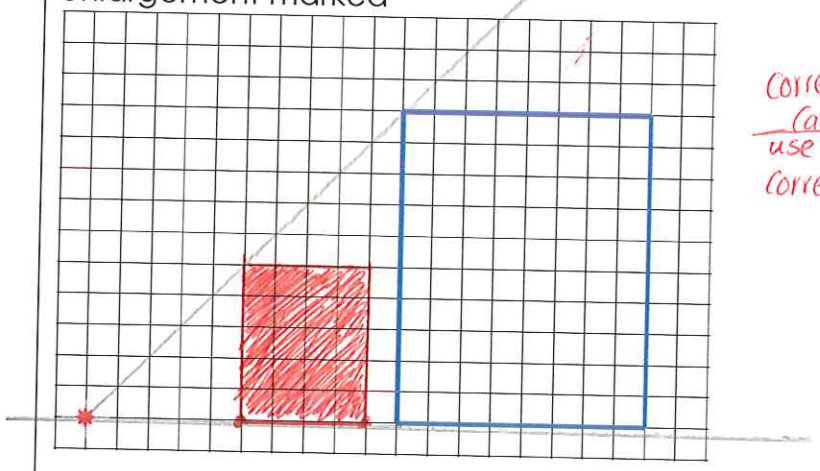


$\begin{pmatrix} 6 \\ -3 \end{pmatrix}$ (1) (1)

2

6

Enlarge using the scale factor of ½ from centre of enlargement marked *



Correct enlargement (1) (any where)
use of rays (1)
Correct enlargement (2)

3

7

Level 2-4		Level 3-5			Level 4-7		
1-2:2a	6-7:4c	2:3c	6-7:4c	12-14:5c	1-2:4c	7-16:5c	17-18:6c
3:3c	8-9:4b	3:3b	8-9:4b	15-17:5b	3-4:4b	11-13:5b	19-20:6b
4:3b	10-11 4a	45:3a	10-11:4a	18-20:5a	5-6:4c	14-16:5a	21-22:6a
5 3a							23-25:7c