1(a)	Says that the wrong line has been given	B1	eg the line should be $y = -1$
	or		
	says that for the given reflection the image would be in the second quadrant (may be implied by sketch)		eg the triangle would move to the other side of the y-axis
	or		
	says that the given line is vertical		eg $x = -1$ is vertical
	or		
	gives the coordinates of at least one image point under the given reflection		eg (1, 1) would move to (−3, 1) (1, 3) would move to (−3, 3) (4, 1) would move to (−6, 1)
	or		
	says that after the given reflection, a rotation 180° (centre (−1, −1)) or an enlargement, scale factor −1 (centre (−1, −1)) is needed		
	Additional Guidance for this question is on the next page		

	Additional Guidance	
	It is the wrong line/axis (of reflection)	B1
	It's not $x = -1$	B1
	The line should be horizontal	B1
	$y = -1$	B1
	$x = -1$ line drawn with explanation that it is incorrect	B1
	Q should be to the left of P	B1
	Correct line drawn, with indication that it should be that line	B1
	Correct statement with irrelevant statement eg It's the wrong line and Q is in the wrong place	B1
	Correct line drawn, but no explanation or equation given	B0
1(a) cont	$x = -1$ line drawn with no explanation that it is incorrect	B0
	It should be reflected in the y-axis	B0
	It is not a reflection in $x = -1$	B0
	Should be rotation about $y = -1$	B0
	They are not an equal distance from each other	B0
	It should be the point $x = -1$	B0
	Q is in the wrong place	B0
	It is a reflection in the x-axis then a translation by $\begin{pmatrix} 0 \\ -2 \end{pmatrix}$	B0
	Correct statement with incorrect statement eg It's the wrong line, it should be $x = -2$	B0
	If more than one image point is given, they must all be correct	

	Should say the centre of rotation (is *O*)	B1	oe statement accept 'axis of rotation' or 'point'

Additional Guidance	
Allow origin or (0, 0) for *O*	
Should be about *O*	B1
There is no centre	B1
It should be around a point	B1
It doesn't give the coordinates	B1
Should/could be 270° clockwise about *O*	B1
Should/could be 270° clockwise	B0
Should be rotation through 90° clockwise about *O*	B0
It is a reflection 90° anticlockwise with centre *O*	B0
It's not reflected on a point	B0
Doesn't say which line you're turning around	B0
Correct statement with incorrect statement eg It should give a centre of rotation at (0, 1)	B0

(Row label: **1(b)**)

Q	Answer	Mark	Comments
	Enlargement	B1	
	$\dfrac{1}{4}$	B1	scale factor oe eg 0.25
	(3, 9) or *A*	B1	centre do not allow $\begin{pmatrix} 3 \\ 9 \end{pmatrix}$

Additional Guidance	
Do not accept reduction or unenlargement or negative	1st B0
Do not accept ÷ 4	2nd B0
A combination of transformations cannot score the first B1 eg1 Enlarge sf $\dfrac{1}{4}$ Translate $\begin{pmatrix} 0 \\ 6 \end{pmatrix}$	B0B1B0
eg2 Enlarge sf $\dfrac{1}{4}$ 1.5 right up 6 (3, 9)	B0B1B1
Do not allow $\begin{pmatrix} 3 \\ 9 \end{pmatrix}$ for (3, 9) but do not regard as implying a combination of transformations eg Enlargement sf 0.25 $\begin{pmatrix} 3 \\ 9 \end{pmatrix}$	B1B1B0
Enlargement, sf 4 about (3, 9)	B1B0B1
Enlarge(d) 0.25 *A*	B1B1B1
Condone *ABC* is an enlargement of *ADE*	1st B1
Condone enlargement with other words unless referring to another transformation eg1 Enlargement making shapes bigger eg2 Enlarged then moved using a vector eg3 Enlarged which means *B* moves to *D* and *C* moves to *E*	1st B1 1st B0 1st B1
If more than one point is listed it must be clear which point is their centre eg (1, 1) (5, 1) (3, 9) (2, 7)	3rd B0
Reflected in the point (3, 9)	B0B0B1

(Q = 2)

Q	Answer	Mark	Comments
3(a)	Any correct reflection of shape with corresponding mirror line shown	B2	B1 any correct reflection of shape with no or incorrect mirror line
	Additional Guidance		
	Mark intention for mirror line and shape		
	Ignore internal lines		
	For B2, if there is more than one shape and / or more than one mirror line, apply the rules of choice		
	For B1, any one correct reflection of the shape (even with other incorrect shapes) will score B1		

Q	Answer	Mark	Comments
	Enlargement drawn with scale factor 2 using given side	B1	any orientation

Additional Guidance
Mark intention
Ignore any labels

4(a)

B1

B1

Q	Answer	Mark	Comments
5	Enlarge(ment)	B1	
	$\frac{1}{2}$	B1	oe condone half
	(1, –7)	B1	condone missing bracket(s)
	Additional Guidance		
	For the third mark, a vector on its own does not imply a translation		
	Do not accept halved or half the size		
	Multiple transformations stated or implied		B0B0B0