



GCSE Foundation/Higher 17

Shape, space and measure



Mark scheme



21 minutes



20 marks

Transformations

M1.	(a) 6 right, 6 down or as vector	B1	[4]
	(b) $y = x$	B1	
	(c) Half turn or 180° 90° or 270° anti-clockwise or clockwise about $(-3, -3)$ or $(3, 3)$	B1	
	Centre $(0, 0)$ or origin Check alternative fully correct for 2 marks, 2 parts correct for 1 mark.	B1	
M2.	(a) Any 90° rotation Allow wrong length of flagpole	B1	[6]
	90° anticlockwise about $(0,0)$ B1, 90° clockwise about $(0,0)$; No labels award best possible mark; no pole, correct position of flag, -1 each time	B2	
	(b) Fully correct	B1	
	(c) Fully correct ie flag drawn at $(1,0)$, $(1,-2)$, $(1,-3)$, $(2,-2)$, $(2,-3)$ Reflected in $x = 1$, B1 Reflected in $y = c$, B1	B2	

M3. Rotation

accept rotational symmetry

B1

180

B1

(About) origin

oe

B1

[3]

M4. (a) (i) Reflection

Accept mirror image or mirrored but NOT mirror or flip

B1

in $x = -1$

MUST give equation of mirror line

B1

(ii) correct triangle

(b) (i) $\frac{1}{2}$

B1

(ii) $(-2, -1)$

1 mm tolerance on reading from graph

B1

[5]

M5.

$$\frac{0+5}{2} \text{ or } \frac{-4+2}{2}$$

or evidence of good use of grid

M1

2.5, -1

*Take one or other value correct as evidence for the M1
SC1 for $(-1, 2.5)$*

A1

[2]

