



GCSE Foundation 18

Shape, space and measure



54 minutes



53 marks

Transformations

M1.	(a)	Reflection	B1	
	(b)	Rotation	B1	
	(c)	Translation	B1	
	(d)	Reflection	B1	[4]

M2.	(a)	12	B1	
		cm ²	B1	
	(b)	(×) 2		
		<i>Do not accept 'double' or 'twice as big'</i>	B1	[3]

M3.	(a)	Top right or bottom left square added	B1	
	(b)	Bottom left or top right square added	B1	
	(c)	Top left square shaded	B1	[3]

M4.	Fully correct rotation			
		<i>B1 180° rotation with centre 0</i>		
		<i>B1 90° clockwise rotation with wrong centre</i>		
		<i>B2 90° clockwise rotation with centre 0</i>		
		<i>B2 90° anticlockwise rotation with wrong centre</i>	B3	[3]

- M5.** (a) Correct line B1
- (b) Any line at right angles to $AB \pm 2^\circ$ B1
- (c) (i) 94 to 98 inclusive B1
- (ii) Mid-point marked ± 2 mm B1
- [4]

- M6.** (a) 60° B1
- (b) 120° B1
- (c) $120^\circ + 120^\circ + 60^\circ + 60^\circ = 360^\circ$
 oe B1 For $120^\circ + 60^\circ = 180^\circ$ B2
- Hence no gaps B1dep
- [5]

- M7.** $12.5 \div 5$ or $16.5 \div 7$
 or 2.5 or 2.3(...) or 2.4
 oe M1
- $12.5 \div 5$ **and** $16.5 \div 7$
 or 2.5 **and** 2.3(...) or 2.4
 or their 2.5×7 or 17.5
 or their 2.3(...) or 2.4×5 or 11.5 - 12 inc M1
- No ticked **and**
 $12.5 \div 5 \neq 16.5 \div 7$
 or $2.5 \neq 2.3(\dots)$ or 2.4
 or $17.5 \neq 16.5$
 or 11.5 - 12 inc $\neq 12.5$
 oe eg, the lengths are different A1
- [3]

M8.	(a) Equilateral (triangle)	B1	[5]
(b)	(i) Rhombus		
	(ii) 2 <i>Accept in words</i>		
	(iii) 2 diagonals drawn <i>-1 eeo</i>		
		B1	
		B2	

M9.	(a) <i>B</i> and <i>F</i>	B1	[6]
(b)	(i) <i>A</i>		
	(ii) 2 <i>Accept $\times 2$ but not 1:2 or 2:1</i>		
(c)	Shape 9 squares wide or 3 squares high		
	Shape 9 squares wide and 3 squares high	B1	
	Fully correct <i>SC2 SF2 or SF4 fully correct</i>	B1	
		B1	

M10.	(a) (i) Congruent ✓	B3
	Symmetry ✗	
	Parallelogram ✗	
	Trapezium ✓	
	Two right angles ✓ <i>B2 for 3 or 4 correct</i> <i>B1 for 1 or 2 correct</i>	
	<i>Treat blank responses as incorrect answers</i>	

(ii) $(4 \times) 1.5$

oe eg, $1 + 1 + 1 + 1 + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2}$

M1

6

A1

(b) Correct reflection

B1

(c) 2nd trapezium in third row



SC1 **both** squares only or **both** triangles only shaded
or no shading but diagonal lines shown within **both** shapes

B1

3rd trapezium in bottom row



B1

[8]

M11. (a) $Q(5, 4), R(4, 0), S(0, 1)$
B1 for 2 correct

B2

(b) $\frac{1}{2} \times 4 \times 1$ or 2
or length of side = 4.1cm ($\pm 1\text{mm}$)

M1

$4 \times (\text{their } 2) + 9$ or

$25 - 4 \times (\text{their } 2)$
or $(\text{their length})^2$

M1

17

M2A1 17 (counting squares)
SC2 17 with no working
SC1 15 to 19 inclusive

A1

cm^2

B1

[6]

M12. Fully correct [(2, 2), (2, 4), (8, 2)]
B2 Enlargement scale factor 2
B1 Any enlargement or 2 points correct

B3

[3]

