



GCSE Foundation/Higher 19

Shape, space and measure



Mark scheme



30 minutes



25 marks

Constructions and loci

M1.	(a) (i) (0)25 $\pm 2^\circ$	B1	[4]
	(ii) 295 $\pm 2^\circ$	B1	
	(b) Correct course ($\pm 2^\circ$) drawn with all construction arcs shown <i>B1 Incorrect or no course shown with all construction arcs attempted or Correct course ($\pm 2^\circ$) drawn with some construction arcs shown, not arcs from A and/or B</i>	B2	
M2.	Allow embedded solutions, but if contradicted M marks only		
	(a) Bearing $037^\circ \pm 2$	B1	
	$290^\circ \pm 2$	B1	
	Correct intersection of lines <i>Ignore any x. Within $\frac{1}{2}$ sq of grid intersection</i>	B1	
	(b) 6 to 6.2 cm	B1	
	Their 6.1×5	M1	
	30 to 31	A1	[6]

M3.	Circle or part circle centred on both A and B	M1	[3]
	Radii within ± 1 mm of 4 and 6 cm and large enough arcs to intersect <i>Check horizontally or vertically with printed grid</i>	A1	
	Correct region indicated <i>ft if one of circles within tolerance</i>	A1 ft	
M4.	(a) line and arc any radius	B1	[4]
	2nd arc same radius and 2nd line $\pm 2^\circ$ accuracy	B1	
	(b) Both arcs intersecting correct radius and region shaded or indicated <i>B1 for either arc, correct radius ± 2 mm</i>	B2	
M5.	C <u>marked</u> within limits of loci <i>B1 bearing from A $\pm 2^\circ$</i> <i>B1 bearing from B $\pm 2^\circ$</i>	B3	[3]
M6.	Arcs on <i>PQ</i> and <i>QR</i> and equal intersecting arcs <i>Allow if arcs are drawn from points P and R</i>	M1	[2]
	Bisector accurate to $\pm 2^\circ$ 59.5 – 63.5	A1	

- M7.** (a) Equal arcs from L and M
Arcs greater than $0.5LM$ within 2 mm
Must have two intersections

M1

Perpendicular drawn

A1

- (b) Equidistant from 2 fixed points
oe

B1

[3]

