

Scale drawing / Loci / symmetry P1 Answers

- | | | | |
|----|--|-----------------------------------|---|
| 1) | correct ruled line
two pairs of correct arcs

correct ruled line
two pairs of correct arcs | 1
1

1
1 | |
| 2) | Angle or triangle [in a] semi-circle | 1 | |
| 3) | Triangle drawn correctly with ruler and arcs | 3 | M1 for one side drawn to correct length

and M1 for clear method of crossing arcs even if wrong scale or inaccurate |
| 4) | (a) Perpendicular bisector drawn with 2 pairs of <u>arcs and ruled</u>

(b) Circle drawn radius 4cm

(c) Correct region shaded | 2

1

1 | SC1 for a ruled perpendicular without arcs or only one pair
or 2 pairs of correct arcs with no line drawn

Dependent on SC1 in (a) and an arc, radius 4cm in (b) to enclose correct area |
| 5) | (a) 2

(b) Both lines drawn | 1

1 | |
| 6) | (a) Angle bisector with correct arcs

(b) Perpendicular bisector with two correct pairs of arcs

(c) Arc centre <i>C</i> , radius 7cm
Correct region shaded | 2

2

1
1FT | B1 for correct line, with incorrect or no arcs or correct arcs with incorrect or no line

B1 for correct line, with incorrect or no arcs or correct arcs with incorrect or no line

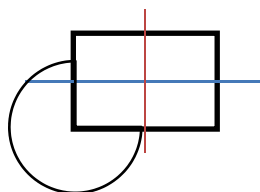
FT <i>their</i> arc centre <i>C</i> |
| 7) | (a) Circle, radius 3 cm, centre <i>A</i> , not inside the rectangle

(b) One line of symmetry with correct arcs


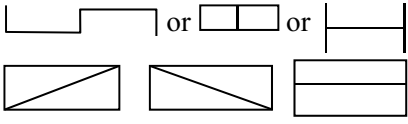
E.g. | 2

2 | M1 for arc or full circle centre <i>A</i> radius 3 cm
or for an incorrect size circle at <i>A</i> outside rectangle

B1 for correct ruled line (must reach or cross two sides)
B1 for 2 pairs of correct intersecting arcs |



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8)	(a) 	1	
	(b) 	1	Many other answers
9)	Perpendicular bisector of AB with 2 pairs of arcs	2	SC1 accurate, but without arcs
10)	(a) Pentagon	B1	
	(b) (i) 61 to 63	B1	
	(ii) AE = 6.3 to 6.5 cm and DE = 5.7 to 5.9 cm	B1	
	correct arcs seen	B1	accept concave polygon SC1 if lengths reversed and with arcs
	(c) (i) perpen.bisector of BC correct arcs seen	B1 B1	+/- 1mm and +/- 1 degree accuracy
	(ii) bisector of angle ABC correct arcs seen	B1 B1	+/- 1 degree accuracy
	(d) "M" correctly marked	B1	dep. on at least first B1 in each part of (c)