Mark scheme

Constructions and loci

Mathematics 0580 · Questions from Paper 1, Paper 2 and Paper 4

Total marks

24

MARKS FOR EACH QUESTION

1	2	3	4	5	6	7	8	9	10	Total
2	2	2	2	2	2	2	3	3	4	**24**

Question 1 **[2]**

1	Correct triangle with sides 6 cm and 4 cm **and** correct arcs	**2**	**B1** for correct triangle with no or incorrect arcs or correct arcs with no or inaccurate sides drawn

Question 2 **[2]**

2	Fully correct triangle with correct arcs	**2**	**B1** for correct triangle without arcs or for correct position of arcs If zero scored, **SC1** for fully correct reversed triangle with arcs ie $AB = 6$ cm and $AC = 7$ cm **or** for triangle with only one of AB **or** AC correct length with suitable arcs

Question 3 **[2]**

3	correct triangle with correct arcs	**2**	**B1** for correct triangle without arcs or 1 correct side with arcs

Question 4 **[2]**

4	Equilateral triangle with correct arcs	**2**	**M1** for clear evidence of constructed 60° angles or arcs crossing equal in length to AB or an accurate diagram with no/incorrect arcs

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Question 5 **[2]**

5	Accurate construction of rhombus with sides 6.5 cm and correct construction arcs.	**2**	**B1** for accurate diagram with no/wrong arcs or for one triangle (6.5 cm, 6.5 cm, 8 cm) correctly constructed with correct arcs or for four correct arcs

Question 6 **[2]**

6(a)	5.6	**1**	
6(b)	Ruled line parallel to AB	**1**	

Question 7 **[2]**

7	Correct triangle with correct arcs	**2**	**B1** for correct triangle without arcs or 1 correct side with arcs

Question 8 **[3]**

8	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

Question 9 **[3]**

9	Correct triangle constructed with $AC = 7$ cm and $BC = 5.3$ cm and intersecting arcs	**3**	**B2** for correct triangle with no incorrect arcs or for a triangle with reversed sides with correct arcs or **B1** for any triangle with a side of 7 cm or a side of 5.3 cm or for 7[cm] or 5.3[cm] soi

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Question 10 **[4]**

10(a)	46°	**1**	
10(b)	84	**1**	
10(c)	Mid-point marked 42 mm along *AB* from *A*.	**1**	
10(d)	Line at 90° to *AB* at *M*.	**1**	**FT** *their* mid-point

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