Mark scheme

Scale drawings and bearings

Mathematics 0580 · Questions from Paper 1, Paper 2 and Paper 3

Total marks

27

MARKS FOR EACH QUESTION

1	2	3	4	5	6	7	8	9	Total
2	2	2	2	3	3	4	4	5	**27**

Question 1 **[2]**

1	11.75	**2**	**M1** for $\frac{9.4\times125000}{100\times1000}$ oe or **B1** for figs 1175 or 1 cm : 1.25 km

Question 2 **[2]**

2	**(a)** (0)34 to (0)36	1	
	(b) 286 to 289	1	

Question 3 **[2]**

3	287°	2	**W1** for 73 or 107 marked in correct position **at *P*** or **M1** 107 + 180

Question 4 **[2]**

4	*S* marked correctly	**2**	**B1** for *HS* drawn length 5.5cm **B1** for bearing of *S* from *H* 155°

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Question 5 **[3]**

5(a)	1 200 000	**1**	
5(b)	250	**2**	**M1** for 70 + 180 or correct diagram indicating angle

Question 6 **[3]**

6	252	**3**	**M2** for $180 \div (7-2)$ oe OR **M1** for $180 - x + y = 360$ oe **M1** for correct use of ratio

Question 7 **[4]**

7	**(a)** 0.54	**2**	**M1** for $\frac{2.7 \times 20000}{100000}$ oe or **SC1** for figs 54 in answer
	(b) 1.61	**2**	**SC1** for figs 161 or **M1** 200^2 or $20\,000^2$ seen

Question 8 **[4]**

8 **(a)**	18.4	**2**	**M1** for $[PQ^2 =]16^2 + 9^2$ or better
(b)	[0]60.4 to [0]60.73	**2**	**M1** for $\tan[\ldots =]\frac{16}{9}$ or better or $\sin[\ldots =]\frac{16}{their\,\textbf{(a)}}$ or better or $\cos[\ldots =]\frac{9}{their\,\textbf{(a)}}$ or better If zero scored, **SC1** for answer [0]29.3 to [0]29.4

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Question 9 **[5]**

9(a)(i)	7.6	**2**	**B1** for 9.5 [cm] or **M1** for $0.8\times k$, $9 \leqslant k \leqslant 10$
9(a)(ii)	102	**1**	
9(b)	307	**2**	**M1** for $180+127$ or $360-(180-127)$ or the correct angle is indicated on a sketch

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