Mark scheme

Ratio and proportion

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

Total marks

27

MARKS FOR EACH QUESTION

1	2	3	4	5	6	7	8	9	10	Total
2	2	2	2	2	3	3	3	4	4	**27**

Question 1 **[2]**

1	35	2	**M1** for 45 ÷ (7 + 2) **SC1** for answer = 10

Question 2 **[2]**

2	1.8	**2**	**M1** for 1.4 ÷ 7 or **SC1** for **answer** 180

Question 3 **[2]**

3	7.5	**2**	**M1** for 12 × 5 ÷ (1 + 5 + 2) oe

Question 4 **[2]**

4	2544	**2**	**M1** for 1824 ÷ 38 [×53] oe

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Question 5 **[2]**

5	Correct working shown leading to answer No with a correct statement. e.g. 980 ÷ 68 [= 14.4…] No, he would need 15 boxes oe or 14 × 68 [= 952] No, he can only pack 952 or he has 28 remaining oe or 980 ÷ 14 [= 70] No, each box would need to hold 70 pens oe	**2**	**B1** for 980 ÷ 68 or No, he would need 15 boxes oe or 14 × 68 or No, he can only pack 952 or he has 28 remaining oe or 980 ÷ 14 or No, each box would need to hold 70 pens oe

Question 6 **[3]**

6	20	**3**	**M2** for $70-\left(15+\frac{15\times 7}{3}\right)$ oe or **M1** for $\frac{15}{3}\times k$, $k = 1$, 7 or 10

Question 7 **[3]**

7	31 : 21	**3**	**B2** for equivalents e.g. 15.5 oe and 10.5 oe or for an equivalent ratio e.g. 3.1 : 2.1 or **M1** for e.g. $x + 5 + x = 26$ oe or $x - 5 + x = 26$ oe

Question 8 **[3]**

8	[A =] 3.2 [B =] 5.6	**3**	**B2** for one correct or for both correct but reversed or **M1** for $\frac{2.4}{7-4}\times k$ where $k = 1$, 4, 7 or 11 oe or for $\frac{x}{x+2.4}=\frac{4}{7}$ oe

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Question 9 [4]

9	**(a)**	38	**2**	**M1** for 57 ÷ (2 + 1) or better
	(b)	12 : 7	**2**	**M1FT** for *their* 38 – 2 **and** *their* 19 + 2 seen dep on sum = 57 If M0 **SC1** for answer 7 : 12

Question 10 [4]

10(a)	280	**2**	**M1** for $\frac{480}{2+3+7} \times k$, $k =$ 1,2,3 or 7
10(b)(i)	2:3 cao	**1**	
10(b)(ii)	1:4 cao	**1**	

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