Mark scheme

Fractions, decimals and the four operations

Mathematics 0580 · Questions from Paper 1 and Paper 2

Total marks

26

MARKS FOR EACH QUESTION

1	2	3	4	5	6	7	8	9	10	Total
2	2	2	2	3	3	3	3	3	3	**26**

Question 1 **[2]**

1(a)	[0].16	**1**	
1(b)	$\frac{16}{100}$ oe	**1**	

Question 2 **[2]**

2	$\frac{2}{9}$ oe, must be a fraction	**2**	**M1** for $2.\dot{2} - 0.\dot{2}$ oe or **B1** for $\frac{k}{9}$

Question 3 **[2]**

3(a)	3.978	**1**	
3(b)	19.5	**1**	

Question 4 **[2]**

4	125	**2**	**M1** for 75 ÷ 3 [× 5] oe

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Question 5 **[3]**

5	**(a)** $(7 + 2) \times 9$ **(b)** $36 \div (6 \div 2) = 12$ **(c)** $5 \times (3 + 6) \times 2 = 90$	1 1 1	

Question 6 **[3]**

6		$\left[\frac{1}{2} \times 1\frac{1}{2} =\right] \frac{3}{4}$ oe $\frac{5\times2}{6\times2}$ and $\frac{3\times3}{4\times3}$ oe or better $\frac{1}{12}$ oe **working must be shown**	**B1** **M1FT** **A1**	

Question 7 **[3]**

7	$\frac{5}{3}\times\frac{2}{15}$ oe or $\frac{10}{6}\div\frac{45}{6}$ oe with common denominator	**M2**	**B1** for $\frac{5}{3}$ oe or $\frac{15}{2}$ oe or **M1** for $\textit{their}\frac{5}{3}\times\textit{their}\frac{2}{15}$
	$\frac{2}{9}$ cao	**A1**	

Question 8 **[3]**

8	$\frac{8}{7}$ and $\frac{21}{10}$ oe improper fractions	**M1**	
	$\frac{168}{70}$ oe improper fractions	**A1**	
	$2\frac{2}{5}$ cao final answer	**A1**	**Dep**. on first **A1** If M0 scored **SC1** for $\frac{8}{7}$ or $\frac{21}{10}$ oe improper fractions

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Question 9 [3]

9	$\frac{1}{6}$ or equivalent fraction	**3**	**B2** for $\frac{625}{750}$ oe or **M2** for $750-\frac{750}{4}-437.5$ oe or **M1** for $750-\frac{750}{4}$ oe or $\frac{750}{4}+437.5$ oe or $\frac{437.5}{750}$ oe

Question 10 [3]

10	621.21… – 6.21… oe	**M1**	
	$\frac{41}{66}$ cao	**A2**	**A1** for $\frac{615}{990}$ oe If M0 scored **SC1** for $\frac{k}{990}$ or for answer $\frac{41}{66}$ with insufficient working

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