

MARK SCHEME for the May/June 2015 series

0580 MATHEMATICS

0580/11

Paper 1 (Paper 1 – Core), maximum raw mark 56

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Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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Abbreviations

cao	correct answer only
dep	dependent
FT	follow through after error
isw	ignore subsequent working
oe	or equivalent
SC	Special Case
nfww	not from wrong working
soi	seen or implied

Qu	Answer	Mark	
1	Sunday	1	
2 (a)	4	1	
(b)	16	1	
3 (a)	24 final answer	1	
(b)	67.5	1	
4	2544	2	M1 for $1824 \div 38 [\times 53]$ oe
5	600	2	M1 for $\frac{3000 \times 5 \times 4}{100}$ oe If zero scored, SC1 for answer 3600
6	Correct triangle with correct pair of arcs	2	M1 for a triangle with one other side correct or for correct pair of arcs
7 (a)	circle	1	
(b)	parallelogram	1	
8 (a)	$\begin{pmatrix} 9 \\ 15 \end{pmatrix}$	1	
(b)	$\begin{pmatrix} 11 \\ -2 \end{pmatrix}$	1	
9 (a)	positive	1	
(b)	More ice creams sold, more sun hats sold oe	1	
10	$24u^2w^3$ final answer	2	B1 for 2 correct elements in final answer
11	6.74[0...]	2	M1 for $\frac{AB}{11.2} = \sin 37$ or better

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12	(a) $(0, 5)$ (b) $y = 3x + k$	1 1	k must be a number, $\neq 5$
13	(a) $w(3w - 2)$ (b) $2x^2 + 8x - 35$ final answer	1 2	B1 for 2 terms correct in final answer or M1 for $2x^2 + 3x$ or $5x - 35$
14	11	3	B1 for 2000[ml] or 0.005[litres] soi M1 for figs $2 \div (6 \times 2 \times 5 \times 3)$ or better or figs 111.... seen
15	(a) 4.8 (b) 1152	2 1	M1 for $288 \div (12 \times 5)$ oe
16	$\frac{9}{5}$ <i>their</i> $\frac{9}{5} \times \frac{7}{3}$ or $\frac{9 \times 7}{5 \times 3}$ $\frac{21}{5}$ or $4\frac{1}{5}$ cao	B1 M1 A1	or $\frac{63}{35}$ or <i>their</i> $\frac{63}{35} \div \frac{15}{35}$ or equivalent division with fractions with common denominators
17	(a) 8.26×10^4 (b) 1.99×10^2	1 2	B1 for figs 199
18	3	3	B1 for $15y - 10$ seen or M1 for $3y - 2 = 35 \div 5$ and M1 for $15y = 35 + \text{their } (5 \times 2)$ or $3y = \text{their } (35 \div 5) + 2$
19	correct shaded region	3	B1 for ruled line 2cm from and parallel to AD and B1 for arc centre B , radius 4cm and B1 for correct shaded region between <i>their</i> vertical line and <i>their</i> arc centre B
20	(a) (i) 27, 38 (ii) Add the next odd number oe (b) 1, 5, 9	2 1 1	B1 for 27 and B1FT for <i>their</i> $27 + 11$

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21	(a)	$2 \times 3 \times 5$	2	B1 for 2, 3, 5 as prime factors
	(b)	90	2	B1 for $90k$ or for listing multiples of each up to 90 or $2 \times 3^2 \times 5$
22	(a)	7.5	2	M1 for $[10] \times \frac{6}{8}$ oe
	(b)	12 cao	2	M1 for $9 \times \frac{8}{6}$ oe or $9 \times \frac{10}{\text{their (a)}}$