

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the May/June 2015 series

0580 MATHEMATICS

0580/11

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

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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
nfw	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)	$(0, 5)$	1	
	(b)	$y = 3x + k$	1	k must be a number, $\neq 5$
13	(a)	$w(3w - 2)$	1	
	(b)	$2x^2 + 8x - 35$ final answer	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	2	M1 for $288 \div (12 \times 5)$ oe
	(b)	1152	1	
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	1	
	(b)	1.99×10^2	2	B1 for figs 199
18		3	3	B1 for $15y - 10$ seen or M1 for $3y - 2 = 35 \div 5$ and M1 for $15y = 35 + \textit{their} (5 \times 2)$ or $3y = \textit{their} (35 \div 5) + 2$
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	2	B1 for 27 and B1FT for <i>their</i> $27 + 11$
	(ii)	Add the next odd number oe	1	
	(b)	1, 5, 9	1	

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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 $9 \times \frac{10}{\text{their (a)}}$