

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the May/June 2015 series

0444 MATHEMATICS (US)

0444/11

Paper 1, 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
nfww	not from wrong working
soi	seen or implied

	Answer	Mark	
1	Sunday	1	
2 (a)	4	1	
(b)	16	1	
3 (a)	24 final answer	1	
(b)	70	1	
4	360	2	M1 for $2000 \div 50 [\times 9]$ 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	$[x =] 2y + b$ oe	2	M1 for $2y = x - b$ or $y + \frac{b}{2} = \frac{x}{2}$
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	1, 2, 3, 4, 5, 6, 7, 8 oe	2	B1 for 1, 2, 3, 4, 5, 6, 7 oe
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	M1 for 2 terms correct or for $2x^2 + 3x$ or $5x - 35$

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14	1.8	3	M2 for $\frac{10 \times 6 \times 2 \times 5 \times 3}{1000}$ oe or M1 for $6 \times 2 \times 5 \times 3$ or better and B1 for correct conversion to liters seen
15 (a)	5.5	2	M1 for $330 \div (12 \times 5)$ oe
(b)	1320	1	
16	$\frac{5}{21}$ cao	3	B1 for $\frac{9}{5}$ or $\frac{5}{9}$ or $\frac{63}{35}$ or $\frac{35}{63}$ and M1 for $\frac{3}{7} \times \text{their } \frac{5}{9}$ or $\frac{15}{35} \div \text{their } \frac{63}{35}$
17 (a)	8.26×10^4	1	
(b)	7.5×10^8	2	B1 for correct answer not in scientific notation i.e. 750 000 000 or B1 for answer $k \times 10^8$ or 7.5×10^k
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	144π or 14400π correct units	2 1	M1 for $4 \times \pi \times 6^2$ If zero scored, SC1 for answer 576π Units must match their surface area i.e. $14400\pi \text{ cm}^2$ does not get this mark If M0, then SC1 for cm^2
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	
21 (a)	$2 \times 3 \times 5$	2	B1 for 2, 3, 5 as prime factors
(b)	90	2	B1 for $90k$ or a list of multiples or $2 \times 3^2 \times 5$

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