Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/22**

Paper 2 (Extended) **October/November 2016**

MARK SCHEME

Maximum Mark: 40

Published

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.

Cambridge will not enter into discussions about these mark schemes.

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Abbreviations

awrt answers which round to
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

Question	Answer	Marks	Part Marks
1	29	**1**	
2	48	**2**	**M1** for $\frac{84}{7}$
3 (a)	28	**2**	**M1** for 40×0.7 oe
(b)	200	**3**	**M2** for $140 \div 0.7$ oe or **M1** for 140 = 70% oe
4 (a)	6.24×10^{-2}	**2**	**M1** for $0.064 - 0.0016$ or 64×10^{-3} or 0.16×10^{-2} if 0 scored **SC1** for figs 624 seen
(b)	$4 \times 10^{[1]}$	**2**	**B1** for 4×10^{k}
5 (a)	83	**1**	
(b)	$\frac{1}{3}$	**2**	**B1** for $\frac{240}{720}$ oe
6 (a)	0	**1**	
(b)	$\frac{32}{90}$ oe	**3**	**M2** for $\frac{5}{10} \times \frac{4}{9} + \frac{4}{10} \times \frac{3}{9}$ or **M1** for $\frac{5}{10} \times \frac{4}{9}$ or $\frac{4}{10} \times \frac{3}{9}$
7 (a)	$2x - 30x^2$ or $2x(1 - 15x)$ final answer	**2**	**B1** for $12x - 15x^2$ or $-15x^2 - 10x$
(b)	$12x^2 + 5xy - 2y^2$ final answer	**3**	**B2** for $12x^2 + 8xy - 3xy - 2y^2$ or **B1** for above with 1 wrong/omitted term
8	4	**1**	
9	$4x^3y$ final answer	**2**	**B1** for any 2 parts correct

Question	Answer	Marks	Part Marks
10 (a)	$2\sqrt{3}$ final answer	**2**	**M1** for $\times\frac{\sqrt{3}}{\sqrt{3}}$ oe
(b)	$2\sqrt{3}-3$ final answer	**2**	**M1** for $\times\frac{2-\sqrt{3}}{2-\sqrt{3}}$
11	$4y=3x-2$ oe final answer	**5**	**B1** (6, 4) seen **B1** $-\frac{8}{6}$ oe seen **B1FT** *their* $\frac{6}{8}$ oe seen **M1** for correct method to find 'c'
12 (a)	$y=0.5x^2$ oe final answer	**2**	**B1** for $y=kx^2$ oe
(b)	8 –8	**1** **1**	