



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.

Cambridge is publishing the mark schemes for the October/November 2016 series for most Cambridge IGCSE[®], Cambridge International A and AS Level components and some Cambridge O Level components.

Page 2	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2016	0607	22

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

Page 3	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2016	0607	22

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 <i>their</i> $\frac{6}{8}$ 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	