



Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/11

Paper 1 (Core)

May/June 2016

MARK SCHEME

Maximum Mark: 40

Published

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[Turn over

Page 2	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0607	11

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	correct shading	1	
2	Sector only correctly drawn.	1	Do not allow diameter
	Chord only correctly drawn.	1	Allow diameter
3	1, 3, 7, 21 cao	2	B1 for 3 and 7 and no others or for 3 factors and no wrong numbers or for all 4 factors and one incorrect
4 (a)	48	1	
(b)	14	1	
5	29	1	
6	30, 10	2	M1 for $40 \div 4$ or better
7	Rectangle, Rhombus	2	B1 for one correct and only one incorrect or for both correct and only one incorrect
8	160	3	M2 for $2(2 \times 5 + 5 \times 10 + 2 \times 10)$ oe or M1 for areas of any two faces
9	-2, -12	2	B1 for -2 as first term in answer If zero scored, SC1 for reverse order
10 (a) (i)	{1, 4, 9}	1	
(ii)	{2, 4, 6, 8}	1	
(iii)	{1, 9}	1	
(b)	Square [numbers]	1	
(c)	$7 \notin A$	1	
	$A \cap B' = \{4\}$	1	

Page 3	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0607	11

Question	Answer	Marks	Part marks
11	120	3	M2 for $180 \times 3 - (90 + 110 + 140 + 80)$ oe or B1 for 180×3 oe and M1 – $(90 + 110 + 140 + 80)$ oe
12	45	2	M1 for $\frac{100}{1000}$ or $\frac{8}{3600}$ oe If zero scored, SC1 for $\frac{100}{8}$
13	Translation $\begin{pmatrix} 0 \\ 3 \end{pmatrix}$	B1 B1	Accept 3 up or 3 in positive y-direction
14	35	1	
15	-3, -2, -1, 0, 1	2	B1 for any 3 or 4 correct in the range -3 to 1 If zero scored, SC1 for -3, -2, -1, 0, 1, 2
16 (a) (i)	$3(x + 2)$ cao final answer	1	M1 for $-6x + 21$ seen
(ii)	$p(p + q)$ cao final answer	1	
(b)	$21 - 5x$ cao final answer	2	
17	Correct method to eliminate one variable [x =] 4 [y =] 0	M1 A1 A1	Dependant on the coefficients being the same for one of the variables Correct consistent use of addition or subtraction If zero scored, SC1 for correct substitution and evaluation to find other variable, or if no working shown, but 2 correct answers