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

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 May/June 2016 series for most Cambridge IGCSE®, Cambridge International A and AS Level components and some Cambridge O Level components.

® IGCSE is the registered trademark of Cambridge International Examinations.

© UCLES 2016

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. Chord only correctly drawn.	**1** **1**	Do **not** allow diameter 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) **(b)**	48 14	**1** **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) **(ii)** **(iii)** **(b)** **(c)**	{1, 4, 9} {2, 4, 6, 8} {1, 9} Square [numbers] $7 \notin A$ $A \cap B' = \{4\}$	**1** **1** **1** **1** **1** **1**	

© Cambridge International Examinations 2016

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) **(ii)** **(b)**	$3(x + 2)$ cao final answer $p(p + q)$ cao final answer $21 - 5x$ cao final answer	**1** **1** **2**	 **M1** for $-6x + 21$ seen
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

© Cambridge International Examinations 2016