Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/12**

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	Mark	Part marks
1	$\frac{3}{4}$	**2**	**B1** for 45 seen or $\frac{45}{60}$ or $\frac{15}{20}$ oe
2	One line only, horizontally through centre of shape	**1**	
3	Parallelogram	**1**	**B0** for rhombus
	Trapezium	**1**	
	Equilateral triangle	**1**	**B0** for triangle
4 (a)	9	**1**	Accept –9 or ± 9
(b)	2	**1**	
5 (a)	$\frac{30}{100}$ or equivalent fraction	**1**	
(b)	90	**1**	
(c)	51	**2**	**M1** for 34 + 17 oe seen or 0.15 × 340
6 (a)	55	**2**	**M1** for 90 + 35 soi by 125
(b)	70	**2**	**M1** for 180 – 40 or better
7	$\frac{6}{35}$ or equivalent fraction	**2**	**B1** for either correct denominator or correct numerator
8 (a)	3	**1**	
(b)	8	**2**	**M1** for $\frac{9}{3} + \frac{30}{6}$
(c)	Lower and correct reason	**1**	

© Cambridge International Examinations 2016

Question	Answer	Mark	Part marks
9 (a)	$\frac{1}{6}$ oe	1	
(b)	$\frac{5}{6}$ oe	1 FT	**FT** 1 – *their* (a), if 0 < *their* (a) < 1
10 (a)	$x(1 - 5x)$ final answer	1	
(b)	$-\frac{4}{5}$ oe	3	**B2** for $4 \div -5$ or **M1** for $\frac{2\times5-3\times2}{-5}$
11	[x =] 5	1	If zero scored, **SCI** for correct substitution **and** evaluation to find the other variable
	[y =] 1	1	
12	1 2 3 4	2	**B1** for 3 correct with only 1 incorrect or **M1** for $1 \leqslant n < 5$
13 (a)	$\begin{pmatrix} 4 \\ -3 \end{pmatrix}$	2	**B1** for each component If zero scored, **SCI** for $\begin{pmatrix} -4 \\ 3 \end{pmatrix}$
(b)	Plot at (4, 3)	1	
14	$x = 0$	1	Accept y-axis
	$y = -1$	1	If zero, SC1 for asymptotes indicated on graph
15 (a)	30	1	
(b)	24	2	**B1** for frequencies of 20 or 44 seen

© Cambridge International Examinations 2016