Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/11**

Paper 1 (Core) **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	Mark	Part marks
1 (a)	(2, 5)	**1**	
(b)	Plot at (4, –2)	**1**	
2	40	**1**	
3	1, 5, 7, 35 cao	**2**	**B1** for 5 **and** 7 and no incorrect factors
4 (a)	**(**6 + 3**)** × 4 – 12 = 24	**1**	
(b)	6 + 3 × **(**4 – 12**)** = –18	**1**	
5	175	**1**	
6	500	**2**	**B1** for 50 **or** 2.5 seen
7 (a)	7200	**1**	
(b)	0.086	**1**	
8 (a)	80	**1**	
(b)	7	**2**	**M1** for $104 - 20 = 12n$ or better oe
9 (a)	2, 16	**1**	
(b)	2, 6	**1**	
10 (a)	$-3x + 6$ final answer	**1**	
(b)	$2x(3 - 5y)$ final answer	**2**	**M1** for $2(3x - 5xy)$ **or** $x(6 - 10y)$
11	$[y =] 3x + 7$	**2**	**M1** for $3x + c$, $c \neq 1$ **or** for $mx + 7$, $m \neq 0$
12 (a)	Correct triangle (–4, 2), (–4, 4), (–5, 4)	**2**	**B1** for reflection in line $x = k$ or $y = -1$
(b)	Rotation	**1**	
	90° clockwise oe	**1**	
	[Centre] (0, 0) oe	**1**	

Question	Answer	Mark	Part marks
13 (a)	Discrete	1	
	The data only takes on integer values oe	1 dep	Dependent on discrete
(b)	Median	1	
	There is one value which is much larger than the others oe	1 dep	Dependent on median
14	$\frac{5x}{6}$	2	**B1** for $\frac{3x}{6}$ **or** $\frac{2x}{6}$ **or** common denominator
15	Correct method to eliminate one variable	M1	Dependant on the coefficients being the same for one of the variables Correct consistent use of addition or subtraction
	$[x =]$ 5	A1	
	$[y =]$ 2	A1	If zero scored, **SC1** for correct substitution **and** evaluation to find other variable **or** for no working shown, but 2 correct answers
16 (a)	5 points correct	2	**B1** for 3 or 4 points correct
(b)	negative	1	
(c)	line with negative gradient passing through mean	1	