UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CAMBRIDGE IGCSE MATHEMATICS (US) **0444/01**

Paper 1 (Core) **For examination from 2012**

SPECIMEN SCORING GUIDE

MAXIMUM SCORE: 56

This document consists of **4** printed pages.

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Types of score

M scores are given for a correct method.
A scores are given for an accurate answer following a correct method.
B scores are given for a correct statement or step.
D scores are given for a clear and appropriately accurate drawing.
P scores are given for accurate plotting of points.
E scores are given for correctly explaining or establishing a given result.
SC scores are given for special cases that are worthy of some credit.

Abbreviations

cao	correct answer only
cso	correct solution only
ft	follow through
isw	ignore subsequent working
oe	or equivalent
soi	seen or implied
ww	without working
www	without wrong working

1 (a)	8	**B1**	
(b)	1	**B1**	**[2]**
2	$\frac{3}{8}$	**B2**	Final answer **B1** for $\frac{12}{32}$ or any correct fraction not in lowest terms seen **[2]**
3	1.2×10^6	**B2**	after **B0**, **B1** for 1.2 seen or **SC1** for 12×10^5 or 1 200 000 **[2]**
4 (a)	$15p^5$	**B2**	**B1** for 15 seen or for p^5 seen
(b)	$2x(x + 3y)$	**B2**	**B1** for $2x$ identified as a factor or for $2(x^2 + 3xy)$ or for $x(2x + 6y)$ **[4]**
5 (a)	12	**B1**	
(b)	24	**B1**	**[2]**
6 (a)	61 or 67	**B1**	
(b)	63	**B1**	
(c)	64	**B1**	**[3]**
7	$2x^2 + 3xy$ or $x(2x + 3y)$	**B2**	**B1** for $3x^2 - x^2 + 3xy$ or $x(3x - x + 3y)$seen or **SC1** for answer $2x^2 - 3xy$ oe or $2x^2$ seen in final answer of 2 terms **[2]**

8 (a)	Points plotted correctly	**P1 P1**	
(b)	(1, 6)	**B1**	**[3]**
9	100	**B2**	If **B0** award **M1** for 60 ÷ 360 or 360 ÷ 60 seen, oe **[2]**
10 (a)	63	**B1**	
(b)	$\frac{11}{63}$ final answer	**B2 ft**	Follow through their **(a)** **M1** for $\frac{(7\times 8-5\times 9)}{\text{their } 63}$ **[3]**
11 (a)	>	**B1**	
(b)	<	**B1**	
(c)	<	**B1**	**[3]**
12 (a)	−13	**B1**	
(b)	$(x =)\ \frac{z+y}{2}$ oe final answer	**B2**	**M1** for $z + y = 2x$ or $\frac{z}{2} = x - \frac{y}{2}$ or $-2x = -z - y$ or **SC1** for answer of form $\frac{\pm z \pm y}{\pm 2}$ **[3]**
13 (a)	18	**B2**	After **B0** award **M1** for finding the area of any appropriate rectangle
(b)	$\frac{24}{2} = \frac{x}{6}$ oe or scale factor 12 soi	**M1**	
	72	**A1**	**[4]**
14 (a)	−2	**B1**	Allow $\frac{-2}{1}$ and $\frac{-4}{2}$ or $\frac{2}{-1}$ or $\frac{4}{-2}$
(b)	$(y =)\ -2x + 4$ final answer	**B2**	**B1** for (their **(a)**)x or +4 as intercept seen in the equation. Not $y = 4$ **[3]**
15 (a)	Correct ruled line with correct arcs and at 30° to 34° to the line AB	**D2**	**M1** for correct ruled line, 30° to 34° to AB (i) with correct arcs but short of BC **or** (ii) reaching BC with wrong or absent arcs
(b)	105 (m) to 112.5 (m)	**B1 ft**	Follow through 15 × their DB (±2 mm) **[3]**

16 (a)	Both points correctly plotted	**P1**	Tolerance is 1 mm for parts **(a)**, **(c)**, and
(b)	32.5	**B2**	If **B0** award **M1** for 260 seen or implied. If working shown condone one error or omission Or $\frac{\Sigma fx}{8}$ seen
(c)	Correct point	**P1 ft**	
(d)	Correct ruled line passing through mean point	**D1**	For line though their mean point and intercepting vertical axis between 10 and 25 **[5]**
17 (a)	90	**B1**	
(b)	65	**B2**	**M1** for 180 – 25 – their (**a**) [155 – their (**a**)]
(c)	25	**B2 ft**	Follow through 90 – their (**b**) **B1** for angle $DEB = 90^\circ$ **used** or **B1** for angle $CEB = 65^\circ$ **seen** **[5]**
18 (a)	0.7	**B1**	Accept equivalent fractions or percentages in all parts. Do not accept ratios or words
(b) (i)	0.7 0.2 0.9	**B2**	**B1** if 2 correct follow through from their **(a)**
(ii)	0.24	**B2**	**B1** for 0.3×0.8 seen **[5]**