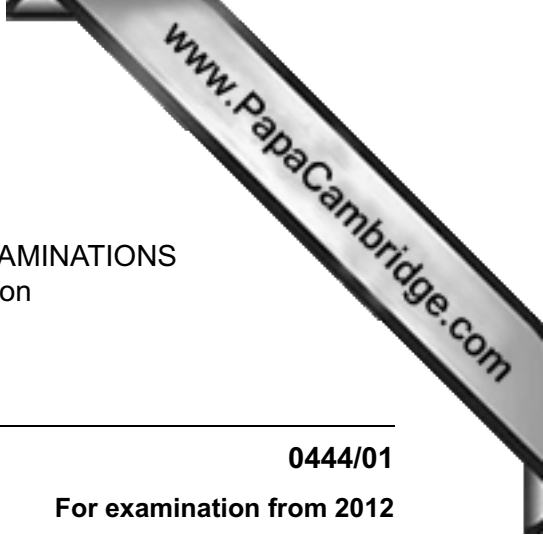




UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education



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.



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 $2x^2 - 3xy$ or 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 $60 \div 360$ or $360 \div 60$ 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 72	M1 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 $15 \times$ 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 $180 - 25 - \text{their (a)}$ [$155 - \text{their (a)}$]
(c)	25	B2 ft	Follow through $90 - \text{their (b)}$ 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]