

**CAMBRIDGE INTERNATIONAL EXAMINATIONS**

Cambridge International General Certificate of Secondary Education

**MARK SCHEME for the October/November 2014 series**

**0607 CAMBRIDGE INTERNATIONAL MATHEMATICS**

**0607/21**

Paper 2 (Extended), maximum raw mark 40

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 October/November 2014 series for most Cambridge IGCSE<sup>®</sup>, Cambridge International A and AS Level components and some Cambridge O Level components.

Page 2	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2014	0607	21

1	(a) $10 - (4 + 3) + 2 = 5$ (b) $(10 - 5) \times (7 + 2) = 45$	1 1	
2	(a) 108 (b) 132	3 2FT	M2 for $\frac{(5-2) \times 180}{5}$ or $180 - \frac{360}{5}$ or M1 for $(5-2) \times 180$ soi by 540 or M1 for $\frac{360}{5}$ M1 for $360 - \text{their } 108 - 120$ or <i>their</i> $72 + 60$
3	(a) 1 (b) $\frac{1}{4}$ or 0.25	1 2	M1 for 2 or 64 seen or reciprocal at any stage
4	(a) 1, 3023 (b) (i) 1 (ii) $pq$	1 1 1	
5	(a) $x < 4$ final answer (b) Correct diagram	3 2FT	B1 for $3x + 6 > 5x - 2$ M1 FT for isolating terms M1 FT for completion correctly to answer space If 0 scored SC1 for $x = 4$ B1FT 4 marked and arrow/line to left or for circle at 4
6	(a) $\frac{62}{200}$ oe (b) (i) Large sample oe (ii) 372	1 1 1FT	
7	(a) 40 (b) (i) 40 (ii) 68	1 1 1	
8	(a) -3 (b) $\frac{10a}{b}$	1 2	M1 for $\frac{a}{b} \times 10^{-2}$ seen

Page 3	Mark Scheme	Syllabus	Paper
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<b>9</b>	A $y = 2x + 3$ B $y = -3x$ C $y = x^2 - 3$ D $y = 3 - x^2$	<b>4</b>	<b>B1</b> each
<b>10 (a)</b>	$2(2a + 5b)(2a - 5b)$ final answer	<b>3</b>	<b>B2</b> for $(4a + 10b)(2a - 5b)$ or $(2a + 5b)(4a - 10b)$ or <b>B1</b> for $2(4a^2 - 25b^2)$
<b>(b)</b>	$\frac{8x - 19}{(2x - 3)(x - 5)}$ final answer	<b>3</b>	Accept $2x^2 - 13x + 15$ <b>M2</b> for $\frac{2(x - 5) + 3(2x - 3)}{(2x - 3)(x - 5)}$ or <b>M1</b> for common denominator $(2x - 3)(x - 5)$
<b>11 (a)</b>	3	<b>1</b>	
<b>(b)</b>	75	<b>2</b>	<b>B1</b> for $[\log] 25$ seen