CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the May/June 2015 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/23 Paper 2 (Extended), maximum raw mark 40

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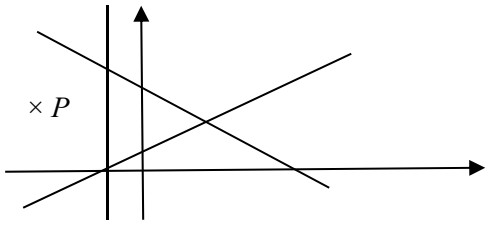
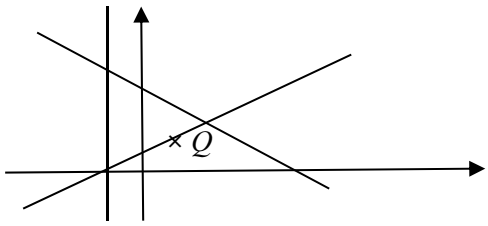
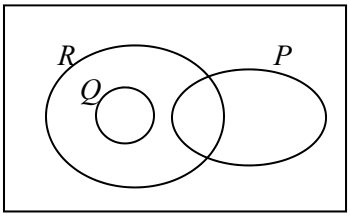
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Abbreviations

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

1 **(a)**	0.000 605	**1**	
(b)	7 000 000	**1**	
2	$\frac{0.6\times 300}{2+10}$ 15	**M1** **A1**	At least 3 correct
3 **(a)** **(i)**	$2^2 \times 3$	**1**	
(ii)	$2 \times 3 \times 7^3$	**1**	
(b)	45	**1**	
4 **(a)**	$64 + 6.25\pi$	**3**	**M1** for $8 \times 5 + 2 \times \frac{1}{2} \times 8 \times 3$ oe **M1** for $2 \times \frac{1}{2} \times \pi \times 2.5^2$ oe
(b)	Rotational oe [Order] 2	**1** **1**	
5	$x > 8$	**3**	Accept $8 < x$ **M1** for $5x + 10 < 8x - 14$ **M1FT** for $10 + 24 < 8x - 5x$ oe or **SC2** for [$x =$] 8 or $x < 8$
6 **(a)**	Bigger sample oe	**1**	
(b) **(i)**	$\frac{24}{150}$ oe	**1**	
(ii)	480	**1**	

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7	**(a)**	(3.2, 2.6)	**3**	**B2** for one co-ordinate supported by algebra or **M1** for $3x + 4(\frac{1}{2}x + 1) = 20$ or other correct elimination of x or y
	(b) (i)	P correct	**1**	
	(ii)	Q correct	**1**	
8	**(a)**	90	**1**	
	(b)	35	**1**	
	(c)	55	**2**	**B1** for $ABC = 90 + 35$ or $ADC = 55$
9			**3**	**B1** for each criterion correct
10	**(a)**	$(x - 5)(x + 2)$	**2**	**SC1** for $(x + a)(x + b)$ where $a + b = -3$ or $ab = -10$
	(b)	$[x =]$ $(ay)^3$ oe	**2**	**M1** for $ay = \sqrt[3]{x}$ or $y^3 = \frac{x}{a^3}$
11	**(a)**	–2	**1**	
	(b) (i)	12	**1**	
	(ii)	16	**1**	
12		2, 2, –12	**3**	**M2** for $a(x + 3)(x - 2)$ or **M1** for $(x + 3)(x - 2)$ If 0 scored, **B1** for $c = -12$

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