

CAMBRIDGE INTERNATIONAL EXAMINATIONS**Cambridge International General Certificate of Secondary Education****MARK SCHEME for the October/November 2015 series****0607 CAMBRIDGE INTERNATIONAL MATHEMATICS****0607/21**

Paper 2 (Extended), maximum raw mark 40

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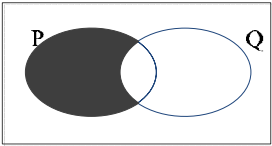
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Abbreviations

cao	correct answer only
dep	dependent
FT	follow through after error
isw	ignore subsequent working
oe	or equivalent
SC	Special Case
nfw	not from wrong working
soi	seen or implied

Question	Answer	Mark	Part Marks
1	$\frac{1}{4}$	2	M1 for $\frac{7}{12} - \frac{4}{12}$ oe or better e.g. $\frac{3}{12}$
2	43.2	2	M1 for $12 \times 60 \times 60 \div 1000$ oe
3 (a)	4.8×10^{-5}	1	
(b)	1.2×10^{16}	2	B1 for correct non standard form answer
4	340	2	M1 for $17 \div 0.05$ oe
5	$2\sqrt{3}$	2	B1 for $5\sqrt{3}$ or $3\sqrt{3}$ or M1 for $\sqrt{25} \times \sqrt{3} - \sqrt{9} \times \sqrt{3}$
6 (a)	2	1	
(b)	$\frac{v-u}{t}$ oe	2	M1 for correctly isolating the term in a M1 for correct division by t
7	8	3	M2 for $\sqrt{17^2 - 15^2}$ or better or M1 for $AC^2 + 15^2 = 17^2$ oe or better
8 (a)	13	1	
(b)	36	2	M1 for 164 seen or indicated
9 (a)	0.008 or $\frac{1}{125}$ oe	1	
(b)	2	1	
(c)	16	1	
(d)	$\frac{1}{2}$ or 0.5	1	
10	$[x =] 50$ $[y =] 130$	1 1FT	180 – <i>their x</i>

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Question	Answer	Mark	Part Marks
11	$[p =] \frac{1}{2}$ or 0.5 $[q =] 2$	2 1	M1 for gradient = $\frac{2}{4}$ oe
12 (a) (b)	4 U 	1 1	
13	$y = -\frac{4}{3}x + 7$ oe	4	B1 for midpoint (0, 7) M1 for gradient of $AB = \frac{10-4}{4--4}$ or better M1 for gradient = $\frac{-1}{\text{gradient of } AB}$
14 (a) (b)	$[y =] \frac{9}{\sqrt{x}}$ 1	2 1FT	M1 for $\frac{k}{\sqrt{x}}$ oe Only FT incorrect k
15	$[a =] 3$ $[b =] 2$	1 1	Allow $2k$, k integer $\neq 0$