

**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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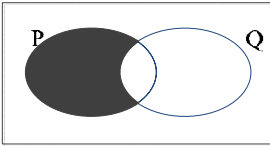
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**Abbreviations**

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

<b>Question</b>	<b>Answer</b>	<b>Mark</b>	<b>Part Marks</b>
<b>1</b>	$\frac{1}{4}$	<b>2</b>	<b>M1</b> for $\frac{7}{12} - \frac{4}{12}$ oe or better e.g. $\frac{3}{12}$
<b>2</b>	43.2	<b>2</b>	<b>M1</b> for $12 \times 60 \times 60 \div 1000$ oe
<b>3 (a)</b>	$4.8 \times 10^{-5}$	<b>1</b>	
<b>(b)</b>	$1.2 \times 10^{16}$	<b>2</b>	<b>B1</b> for correct non standard form answer
<b>4</b>	340	<b>2</b>	<b>M1</b> for $17 \div 0.05$ oe
<b>5</b>	$2\sqrt{3}$	<b>2</b>	<b>B1</b> for $5\sqrt{3}$ or $3\sqrt{3}$ or <b>M1</b> for $\sqrt{25} \times \sqrt{3} - \sqrt{9} \times \sqrt{3}$
<b>6 (a)</b>	2	<b>1</b>	
<b>(b)</b>	$\frac{v-u}{t}$ oe	<b>2</b>	<b>M1</b> for correctly isolating the term in $a$ <b>M1</b> for correct division by $t$
<b>7</b>	8	<b>3</b>	<b>M2</b> for $\sqrt{17^2 - 15^2}$ or better or <b>M1</b> for $AC^2 + 15^2 = 17^2$ oe or better
<b>8 (a)</b>	13	<b>1</b>	
<b>(b)</b>	36	<b>2</b>	<b>M1</b> for 164 seen or indicated
<b>9 (a)</b>	0.008 or $\frac{1}{125}$ oe	<b>1</b>	
<b>(b)</b>	2	<b>1</b>	
<b>(c)</b>	16	<b>1</b>	
<b>(d)</b>	$\frac{1}{2}$ or 0.5	<b>1</b>	
<b>10</b>	[x =] 50 [y =] 130	<b>1</b> <b>1FT</b>	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 $\neq 0$