## MARK SCHEME for the May/June 2015 series

## 0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/11 Paper 1 (Core), 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.
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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) <br> (b) <br> (c) | 93 <br> 24 <br> Bus 2 | 1 <br> 1 <br> 1 | Accept 1 h 33 min <br> Accept 1620 |
| :---: | :---: | :---: | :---: |
| 2 | 10 | 1 |  |
| 3 | Correct shading | 2 | -1 mark for each error or omission. |
| 4 | $\begin{aligned} & {[x=] 65} \\ & {[y=] 230} \end{aligned}$ | 1 <br> 1 | Tolerance $\pm 2^{\circ}$ for each answer |
| 5 (a) <br> (b) <br> (c) <br> (d) <br> (e) | Cuboid <br> Hexagon <br> Parallelogram <br> Kite <br> Trapezium | 5 | B1 for each correct label. |
| $6$ <br> (b) | $\begin{align*} & 4^{3}  \tag{a}\\ & 1 \end{align*}$ | $1$ <br> 1 |  |
| $7 \quad \text { (a) }$ <br> (b) | $\begin{aligned} & (4,5) \\ & (3,0) \end{aligned}$ | 1 <br> 1 |  |
| 8 (a) (i) <br> (ii) <br> (b) | $\begin{aligned} & 1.8 \times 10^{5} \\ & 180 \text { or } 1.8 \times 10^{2} \\ & 1 \times 10^{-3} \end{aligned}$ | 1 <br> 1 <br> 1 |  |


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| 9 | $\binom{5}{-1}$ | 2 | B1 for each component If 0 scored, SC1 for $\binom{-5}{1}$ or $\binom{-1}{5}$. |
| :---: | :---: | :---: | :---: |
| $\begin{array}{ll} 10 & \text { (a) } \\ & \text { (b) } \end{array}$ | Positive $80$ | $1$ |  |
| 11 | 6 | 2 | $\text { M1 for } \frac{15}{5} \text { or } \frac{5}{15} \text { soi by } \times 3 \text { or } \times \frac{1}{3}$ |
| 12 (a) <br> (b) | $12 x-15 y \text { or } 3(4 x-5 y)$ <br> Final answer <br> $5 p q(p+2 q)$ <br> Final answer |  | M1 for $6 x-12 y$ or $6 x-3 y$ or B1 for $12 x$ or $-15 y$ in answer <br> M2 for $p q(5 p+10 q)$ or $5 p\left(p q+2 q^{2}\right)$ or $5 q\left(p^{2}+2 p q\right)$ <br> or M1 for $5\left(p^{2} q+2 p q^{2}\right)$ <br> or $p\left(5 p q+10 q^{2}\right)$ or $q\left(5 p^{2}+10 p q\right)$ |
| 13 | Correctly eliminating one variable $\begin{aligned} & {[x=] 4} \\ & {[y=] 1} \end{aligned}$ | $\begin{aligned} & \text { M1 } \\ & \\ & \text { A1 } \\ & \text { A1 } \end{aligned}$ | If 0 scored, $\mathbf{S C 1}$ for correct substitution and evaluation to find the other variable. <br> If no working shown, $\mathbf{S C 1}$ for 2 correct answers given. |
| $14 \quad$ (a) <br> (b) | $\frac{7}{15}$ <br> [ No ] could be a multiple of 15 oe |  |  |
| 15 (a) <br> (b) <br> (c) <br> (d) | 44 <br> 28 <br> 32 <br> 4 | $\begin{gathered} 1 \\ 1 \\ 1 \mathrm{FT} \\ 1 \end{gathered}$ | FT 60 - their (b) provided $0<$ their (b) $<60$ |

