## MARK SCHEME for the October／November 2015 series

## 0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607／13 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．
Cambridge is publishing the mark schemes for the October／November 2015 series for most Cambridge IGCSE ${ }^{\circledR}$ ，Cambridge International A and AS Level components and some Cambridge O Level components．

| Page 2 | Mark Scheme | Syllabus | P. |
| :---: | :---: | :---: | :---: |
|  | Cambridge IGCSE - October/November 2015 | 0607 | 13 |

## Abbreviations

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


| Question | Answer | Mark | Part Marks |
| :---: | :---: | :---: | :---: |
| 1 | 25 | 1 |  |
| 2 (a) <br> (b) | 16 <br> Different closed shape with area $11 \mathrm{~cm}^{2}$ | $\begin{aligned} & 1 \\ & 2 \end{aligned}$ | M1 for 11 seen |
| 3 (a) <br> (b) | $\begin{aligned} & -8 \\ & \frac{3}{5} \end{aligned}$ | 1 <br> 2 | M1 for $\frac{6}{10}$ seen. <br> If zero scored, SC1 for correct simplification of their fraction. |
| $4 \quad$ (a) <br> (b) | B <br> C | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ |  |
| $5 \quad \text { (a) }$ | $\begin{aligned} & 6 \\ & 7 \end{aligned}$ | $\begin{gathered} 1 \\ \mathbf{1 F T} \end{gathered}$ | FT $42 \div$ their (a) |
| 6 | $\sqrt{7}$ | 1 |  |
| 7 | $\begin{aligned} & x=1 \\ & y=-2 \end{aligned}$ | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ | If zero, SC1 for 1 and -2 only clearly indicated |
| 8 (a) <br> (b) | $\begin{aligned} & 240 \\ & 180 \end{aligned}$ | $\begin{aligned} & 2 \\ & 2 \end{aligned}$ | M1 for $\frac{120}{360} \times 720$ oe <br> M1 for $360-(120+80+70)$ seen or better |
| 9 | $x=2$ | 1 |  |
| 10 | Both correct ruled tangents | 1 | and no other lines |


| Page 3 | Mark Scheme | Syllabus | 仡 |
| :---: | :---: | :---: | :---: |
|  | Cambridge IGCSE - October/November 2015 | 0607 | 13 |


| Question | Answer | Mark | Part Marks |
| :---: | :---: | :---: | :---: |
| (a) (i) <br> (ii) <br> (iii) <br> (b) <br> (c) <br> (d) | $5 x-17$ Final answer $8 d^{2} \quad$ Final answer $\frac{x}{6}$ oe $2 a(3 b-4 a)$ Final answer <br> 7 $x<5.5 \mathrm{oe}$ <br> Final answer | 1 <br> 2 <br> 2 <br> 1 <br> 2 | B1 for either $5 x$ or -17 <br> M1 for $\frac{2 x}{6}-\frac{x}{6}$ oe <br> B1 for answer $2\left(3 a b-4 a^{2}\right)$ or $a(6 b-8 a)$ <br> If zero scored, SC1 for correct answer seen then bracket multiplied out <br> M1 for correct first step <br> If zero scored, $\mathbf{S C 1}$ for answer 5.5 |
| 12 (a) <br> (b) <br> (c) | Correct plots <br> Negative <br> Ruled line <br> through (4, 3600) |  | B1 for 2 or 3 points plotted correctly <br> Dependant on: single straight line with negative gradient |
| 13 | 100 | 3 | M1 for 25 seen and M1 for $\frac{1}{3} \times 25 \times 12$ or better |
| 14 | 10 | 2 | M1 for $\left[c^{2}=\right] 6^{2}+8^{2}$ or better |

