

MARK SCHEME for the May/June 2014 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/11

Paper 1 (Core), maximum raw mark 40

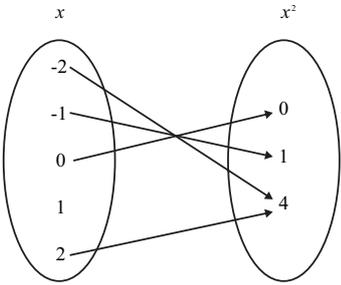
This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, 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.

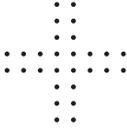
Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2014 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

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|--------|-----------------------|----------|-------|
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| | | | |
|-------|--|------------------------|---|
| 1 | 5 | 1 | |
| 2 | 240 | 1 | |
| 3 (a) | 46.8 | 1 | |
| (b) | 59.90 | 1 | |
| 4 (a) | Diameter | 1 | |
| | Sector | 1 | |
| | Arc | 1 | |
| (b) | $103^\circ \pm 2^\circ$ | 1 | |
| 5 (a) | Plot A (-3, 2) | 1 | See × or point marked |
| (b) | (2, 3) | 1 | |
| (c) | (1, 0.5) | 1 | |
| 6 (a) | 120 | 3 | M1 for $360 \div 6$ oe and M1 for $180 - \textit{their} 60$. Alt method M1 for $(6 - 2) \times 180$ oe and M1 for $\textit{their} 720 \div 6$ |
| (b) | Angles at a point add up to 360 $135 + 135 + 90 [= 360]$ | B1 B1 | |
| 7 | $\begin{pmatrix} -4 \\ 5 \end{pmatrix}$ | 2 | B1 for each. or SC1 for $\begin{pmatrix} 4 \\ -5 \end{pmatrix}$ |
| 8 | $\frac{5}{6}$ | 1 | |
| 9 (a) | All 4 arrows correct i.e.  | 2 | B1 for any 3 arrows correct. |
| (b) | 0, ±1, ±2 oe | 1 | |
| (c) | Many-to-one written or indicated | 1 | |

| Page 3 | Mark Scheme | Syllabus | Paper |
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| | | | | |
|----|---------|---|---|---|
| 10 | (a) | Shape with vertices at $(-4, 0)$, $(-8, 2)$, $(-6, 6)$ and $(-4, 6)$ | 2 | SC1 for reflection in the x -axis. |
| | (b) | Shape with vertices at $(2, 0)$, $(4, 1)$, $(3, 3)$ and $(2, 3)$ | 3 | B2 for correct size and orientation, wrong place or B2 for correct apart from error in 1 vertex or B1 for incorrect scale factor, centre $(0, 0)$ or B1 for any enlargement, $sf \neq 1$ |
| 11 | (a) | 32 | 2 | M1 for $4 \times 3p$ or $4 \times 5t$ or 4×8 seen. |
| | (b) (i) | 8 | 2 | M1 for correct first step |
| | (ii) | 3 | 3 | M1 for $4x - 5 = 7$ or $16x - 20 = 28$ and M1 for $4x = 12$ or $16x = 48$ or FT <i>their</i> first step ($ax = b$) ($a \neq 1$) |
| 12 | (a) |  | 1 | |
| | (b) | 12, 20, 28 | 2 | B1 for 2 correct |
| | (c) | $8n - 4$ | 2 | M1 for $8n + j$ or $kn - 4$ where $j, k \neq 0$ |