

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2015 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/12

Paper 1 (Core), maximum raw mark 40

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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 |

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

| | | | |
|---------------|--|-----------------|--------------|
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| Question | Answer | Mark | Part Marks |
|-------------------|-------------------------------|-------------|--|
| 11 (a) (i) | $5x - 17$ Final answer | 2 | B1 for either $5x$ or -17 |
| (ii) | $8d^2$ Final answer | 1 | |
| (iii) | $\frac{x}{6}$ oe | 2 | M1 for $\frac{2x}{6} - \frac{x}{6}$ oe |
| (b) | $2a(3b - 4a)$ Final answer | 2 | B1 for answer $2(3ab - 4a^2)$ or $a(6b - 8a)$ If zero scored, SC1 for correct answer seen then bracket multiplied out |
| (c) | 7 | 1 | |
| (d) | $x < 5.5$ oe Final answer | 2 | M1 for correct first step If zero scored, SC1 for answer 5.5 |
| 12 (a) | Correct plots | 2 | B1 for 2 or 3 points plotted correctly |
| (b) | Negative | 1 | |
| (c) | Ruled line | 1 | |
| | through (4, 3600) | 1 | 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 $[c^2 =] 6^2 + 8^2$ or better |