

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the May/June 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 |
| nfw | not from wrong working |
| soi | seen or implied |

| | | | | |
|-----------|------------|---------------------------------|-----------|--|
| 1 | (a) | 5 | 1 | |
| | (b) | 1 | 1 | |
| 2 | | 1 2 4 8 16 | 2 | B1 for 3 or 4 factors in list of maximum 5 numbers |
| 3 | | 1.15 | 2 | M1 for $5 - (1.50 + 2.35)$ oe If 0 scored, SC1 for 115 |
| 4 | (a) | $\frac{1}{17}$ | 1 | |
| | (b) | -2, 1, 6 | 2 | B1 for terms increasing by 3 and then 5 or B1 for any correct term seen on answer line |
| 5 | (a) | 6 | 1 | |
| | (b) | 2.5 | 2 | M1 for ordered list (6 in correct order) or 2 and 3 identified as either side of the median |
| | (c) | 2.9 | 2 | M1 for method for total Σf soi by 29 |
| 6 | (a) | 95 | 2 | M1 for $180 - 40 - 55$ or better or $40 + 55$ |
| | (b) | 130 | 1 | |
| | | Corresponding | 1 | |
| 7 | | 560 | 1 | |
| 8 | (a) | 3.46×10^2 | 1 | |
| | (b) | 2.16×10^{-3} | 1 | |
| 9 | | $\frac{20 + 30}{0.5}$ | M1 | If 0 scored, SC1 for two of 20, 30 or 0.5 seen |
| | | 100 | A1 | |
| 10 | | Correct shape in correct place. | 2 | If 0 scored, SC1 for correct size & orientation or SC1 for 3 or 4 points correct |

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| | | | |
|--------|--|---|---|
| 11 | $x + 4$ final answer | 1 | |
| 12 | $[r =] \sqrt{\frac{A}{4\pi}}$ or $\frac{\sqrt{A}}{\sqrt{4\pi}}$ oe final answer | 2 | M1 for $[r^2 =] \frac{A}{4\pi}$ or $\sqrt{A} = \sqrt{4\pi r^2}$ or better |
| 13 | Correctly eliminating one variable $[x =] 1$ $[y =] 2$ | M1 A1 A1 | If 0 scored, SC1 for correct substitution and evaluation to find the other variable. SC1 if no working shown, but 2 correct answers given. |
| 14 (a) | A correct B correct | 1 1 | |
| (b) | $-\frac{3}{4}$ oe | 2FT | M1 for $\frac{\text{rise}}{\text{run}}$ attempted from <i>their</i> points provided <i>their</i> A and B do not have same y co-ordinate |
| 15 (a) | Correct probabilities on branches | 1 | |
| (b) | $\frac{1}{25}$ | 2 | M1 for $\frac{1}{5} \times \frac{1}{5}$ oe |
| 16 (a) | E | 1 | |
| (b) | B | 1 | |