Junior Lyceum Entrance Examination into Form I - 2005
Mathematics Marking Scheme

| Question | Requirements | Mark | Additional Guidance |
| :---: | :---: | :---: | :---: |
| $\begin{array}{r} 1 \mathrm{a} \\ \mathrm{~b} \\ \mathrm{c} \end{array}$ | $\begin{aligned} & \hline 101 \\ & 3226 \\ & \text { Interpreting data from bar chart } \\ & 13 \end{aligned}$ | $1$ | c.a.o. |
| $2 \mathrm{a}$ <br> b i) <br> ii) |  <br> $\frac{3}{4}$ <br> Valid attempt to subtract fractional parts $1 \frac{1}{4}$ | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |  |
| $3 \mathrm{a}$ <br> b i) <br> ii) | Valid method 105 <br> John <br> 2 | $\begin{array}{\|l\|} \hline 1 \\ 1 \\ 1 \\ 1 \end{array}$ |  |
| $\begin{array}{r} 4 \mathrm{a} \\ \mathrm{~b} \end{array}$ <br> c i) <br> ii) | $\begin{aligned} & 10,5 \\ & 0.8 \\ & \text { Any } 4 \text { parts shaded } \\ & 8 \end{aligned}$ | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ | both must be correct |
| 5 i) <br> ii) | Both multiplications seen/implied 80 Valid attempt to arrive at a solution 10 | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |  |
| 6 i) <br> ii) <br> iii) <br> iv | Correct completion of triangle 14 98 2,2 | $1$ | $\begin{aligned} & \pm 2 \mathrm{~mm} \\ & \pm 2^{\circ} \end{aligned}$ |
| $7 \text { i) }$ <br> ii) | Valid attempt to find the perimeter 46 Valid attempt to find area 56 | $\begin{array}{\|l\|l} \hline 1 \\ 1 \\ 1 \\ 1 \\ \hline \end{array}$ |  |
| $\begin{gathered} 8 \text { i) } \\ \text { ii) } \\ \text { iii) } \end{gathered}$ | 10:00 o.e. <br> Correct drawing of minute hand  <br> Valid attempt to arrive at a solution seen/implied  <br> 50  | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |  |
| $\begin{array}{cc} 9 \text { a } & \text { i) } \\ & \text { ii) } \\ b & \end{array}$ | four <br> pyramid <br> 8 <br> 5 | $1$ |  |
| 10 i) <br> ii) | Attempt to divide 448 by 37 Intermediate working <br> 12 <br> 33 g | $\begin{array}{\|l\|} \hline 1 \\ 1 \\ 1 \\ 1 \end{array}$ | f.t. |


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| 11 | $\begin{array}{ll} \hline \begin{array}{ll} \mathrm{a} & \text { i) } \\ & \text { ii) } \\ \mathrm{b} \end{array} \\ \hline \end{array}$ | Valid method, 12 <br> Valid method, 18 <br> $\times 12$ seen/implied, 240 | $\begin{aligned} & 1,1 \\ & 1,1 \\ & 1,1 \end{aligned}$ | f.t |
| 12 | $\begin{array}{\|l} \mathrm{a} \\ \mathrm{~b} \\ \mathrm{c} \\ \mathrm{~d} \end{array}$ | Lm150 <br> 6 <br> Valid method seen/implied, Lm2250 <br> Valid method seen/implied, 3 | $\begin{aligned} & \hline 1 \\ & 1 \\ & 1,1 \\ & 1,1 \end{aligned}$ |  |
| 13 | b | Correct conversion of at least one height Adding heights and dividing by 3 <br> 151 <br> No <br> Susan, 1.5 m (o.e.) written as second shortest <br> Alice, 151 cm (o.e.); Grace, 1 m 55 cm (o.e.) | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ | both correct |
| 14 | $\begin{aligned} & \mathrm{a} \\ & \mathrm{~b} \\ & \mathrm{c} \\ & \mathrm{~d} \end{aligned}$ | Square numbers <br> BCA <br> 49, 64 <br> 1 $16,25$ | $\begin{aligned} & 1 \\ & 1 \\ & 1,1 \\ & 1 \\ & 1 \end{aligned}$ | accept square/s <br> both correct |
| 15 | $\begin{array}{ll} \left.\hline \begin{array}{ll} a & \\ b & \text { i) } \\ & \text { ii) } \\ c \end{array}\right) \end{array}$ | East <br> 5.8 cm <br> Correct method, 23.2 m <br> 12 m North then 12 m East <br> 17 m ( $\pm 1 \mathrm{~m})$ North East | $\begin{aligned} & 1 \\ & 1 \\ & 1,1 \\ & 1 \\ & 1 \end{aligned}$ | $\pm 2 \mathrm{~mm}$ <br> f.t. <br> Accept any correct answer provided both distance and direction are given. |
| 16 |  | i) A - Cuboid, ii) B - Cube <br> $\mathrm{L} \times \mathrm{B} \times \mathrm{H}$ seen/implied <br> Box A: 15000 <br> Box B: 15625 <br> Yes (f.t.), Box B has a larger capacity (o.e.) | $\begin{aligned} & 1,1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ | Reason to justify Yes/No conclusion |
| 17 | a | Rita: $5 \mathrm{~cm}+3 \mathrm{~cm}+5 \mathrm{~cm}+3 \mathrm{~cm}=\mathbf{1 6} \mathrm{cm}$ <br> Sue: $5 \mathrm{~cm} \times \mathbf{2}=\mathbf{1 0} \mathrm{cm}$ <br> $3 \mathrm{~cm} \times 2=+6 \mathrm{~cm}$ <br> Ans: 16 cm <br> Ann: $(5 \mathrm{~cm}+3 \mathrm{~cm}) \times 2=\mathbf{1 6} \mathrm{cm}$ <br> Any valid attempt to find the perimeter 26 | 1 <br> 1 <br> 1 <br> 2 <br> 1 | $\begin{gathered} \text { c.a.o. } \\ \text { c.a.o. } \\ \text { c.a.o. } \end{gathered}$ |
| 18 | $\begin{aligned} & \mathrm{a} \\ & \mathrm{~b} \end{aligned}$ | Valid attempt to arrive at a solution, Lm46 <br> Valid attempt to arrive at a solution, Lm67 <br> Valid attempt to arrive at a solution, 26 | $\begin{aligned} & 1,1 \\ & 1,1 \\ & 1,1 \end{aligned}$ |  |
| 19 | a | 7, 7, 7 <br> Valid attempt seen/implied - 6, 9, 6 <br> Valid attempt seen/implied - 6, 8, 7 | $\begin{aligned} & 1 \\ & 1,1 \\ & 2,1 \end{aligned}$ |  |
| 20 | a | Multiplying to find the number of guests Addition to find the total 51 <br> Subtracting 20 seen/implied <br> Valid attempt to arrive at a solution <br> 2 triangular, 2 rectangular | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ | both correct |

Legend to Marking Scheme: c.a.o. correct answer only
f.t. follow through
o.e. or equivalent

## Other guidelines:

1. No mark in the marking scheme is sub-divisible.
2. Even if no working is shown, a correct answer scores full marks.
3. Incorrect answers - even though nearly correct - score no marks.
4. Incorrect working or statement following a correct answer is ignored.
5. An answer or working that is crossed out and not replaced is marked as if it was not crossed out. If the answer or working is replaced then the crossed out answer or working should not be considered in your marking.
6. If the child copies the answer from the working area to the answer area incorrectly, then award the marks without penalising.
7. Misread loses only the final accuracy mark but f.t. can be allowed on subsequent parts. The method marks can still be earned provided that the part question is not oversimplified.

Markers are reminded to jot down any remarks about the PAPER and the children's performance in particular questions. These remarks are to be included in the report each marker has to submit at the end of the marking exercise.
(A comments' sheet is supplied in order to help you compile this report.)

