## edexcel

Mark Scheme (Results)
Summer 2012

PLSC Primary (Year 6)
JMA01 Paper 01

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## General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.
- Mark schemes will indicate within the table where, and which strands of QWC, are being assessed. Questions labelled with an asterisk (*) are ones where the quality of written communication will be assessed.


## Using the Mark Scheme

Examiners should look for qualities to reward rather than faults to penalise. This does NOT mean giving credit for incorrect or inadequate answers, but it does mean allowing candidates to be rewarded for answers showing correct application of principles and knowledge. Examiners should therefore read carefully and consider every response: even if it is not what is expected it may be worthy of credit.

The mark scheme gives examiners:

- an idea of the types of response expected
- how individual marks are to be awarded
- the total mark for each question
- examples of responses that should NOT receive credit.
/ means that the responses are alternatives and either answer should receive full credit.
( ) means that a phrase/word is not essential for the award of the mark, but helps the examiner to get the sense of the expected answer.

Phrases/words in bold indicate that the meaning of the phrase or the actual word is essential to the answer.
ecf/TE/cq (error carried forward) means that a wrong answer given in an earlier part of a question is used correctly in answer to a later part of the same question.

Candidates must make their meaning clear to the examiner to gain the mark. Make sure that the answer makes sense. Do not give credit for correct words/phrases which are put together in a meaningless manner. Answers must be in the correct context.

Mark Scheme for paper JMA01/01
Section A

| Question Number | Answer | Mark |
| :---: | :---: | :---: |
| 1 | A | 1 |
| 2 | B | 1 |
| 3 | D | 1 |
| 4 | D | 1 |
| 5 | B | 1 |
| 6 | D | 1 |
| 7 | C | 1 |
| 8 | A | 1 |
| 9 | B | 1 |
| 10 | D | 1 |
| 11 | C | 1 |
| 12 | B | 1 |
| 13 | C | 1 |
| 14 | C | 1 |
| 15 | A | 1 |
| 16 | A | 1 |
| 17 | B | 1 |
| 18 | C | 1 |
| 19 | D | 1 |
| 20 | D | 1 |

## Section B



|  |  |  |  | answers written on the chart |
| :---: | :---: | :---: | :---: | :---: |
| 26c |  | red | 1 | B1 <br> Accept unambiguous answers written on the chart |
| 27 | $\begin{aligned} & 15-6=9 \\ & 9 \times 4=36 \end{aligned}$ | 36 | 2 | M1 (15-6) $\times 4$ oe A complete method must be seen to award M1 <br> A1 cao |
| 28 |  | Rectangle completed | 1 | B1 <br> Vertices must be within 2 mm of correct dots <br> Accept: Intention to draw correct straight lines, slight inaccuracies and lines drawn without a ruler |
| 29 |  | $\begin{aligned} & > \\ & = \\ & < \end{aligned}$ | 2 | B2 for all 3 symbols correct <br> B1 for any 2 correct |
| 30 |  | 1, 3, 5, 15 | 2 | B2 for all 4 factors correct <br> B1 for any 3 correct with no incorrect or for 5 factors listed but must include the 4 correct |
| 31 | Isosceles triangle | Yes <br> No <br> Yes <br> No | 1 | B1 (isosceles triangle) Accept: Y $\quad \checkmark \quad \checkmark$ N X Y V N X |
|  | Right-angled |  | 1 | B1 (right-angled triangle) |


|  | triangle | No <br> No <br> Yes <br> Yes |  | Accept:   <br> N X  <br> N   <br> X   <br> Y $\checkmark$  <br> Y $\checkmark$  <br>  $\checkmark$  |
| :---: | :---: | :---: | :---: | :---: |
| 32a |  | 3611 | 1 | B1 |
| 32b |  | 1572 | 1 | B1 |
| 33a |  | 130 | 1 | B1 |
| 33b | $\begin{aligned} & 235-60=175 \\ & 175 \div 7=25 \end{aligned}$ | 25 | 2 | $\begin{aligned} & \text { M1 }(235-60) \div 7 \text { oe, } \\ & 235-60 \div 7 \text { or " } 235- \\ & 60 " \div 7 \end{aligned}$ <br> A1 cao |
| 34 | Explanation which indicated that $1 / 3=$ 0.33(33...) or that $1 / 3=$ 10/30 AND 3/10 = 9/30 or any other complete method | Correct statement identified AND correct explanation | 1 | B1 |
| 35 |  | Sarah 100 | 1 | B1 |
|  | $\begin{aligned} & 250-100=150 \\ & 150 \div 5 \times 3= \\ & 90 \\ & 150-90=60 \end{aligned}$ | $\begin{aligned} & \text { Fatima } 90 \\ & \text { Aya } 60 \end{aligned}$ | 2 | $\text { M1 }(250-" 100 ") \div 5 \times 3$ oe <br> A1 (ft) <br> SCB1: for Fatima $=60$ AND Ava $=90$ (with or without working) |
| 36a | $\begin{aligned} & 220 \mathrm{~cm}-196 \mathrm{~cm} \\ & =24 \mathrm{~cm} \\ & \text { or } \\ & 2.2 \mathrm{~m}-1.96 \mathrm{~m}= \\ & 0.24 \mathrm{~m} \end{aligned}$ | 24 | 1 | B1 accept 0.24 if cm changed to m |
| 36b |  | 15.5 | 1 | B1 accept 15.50 |


| 37 | $\begin{aligned} & \text { Either } \\ & 180-90-53= \\ & 37 \\ & 180-37=143 \\ & \text { Or } \\ & 53+90=143 \end{aligned}$ | $143^{\circ}$ | 2 | M1 180-(180 - 90-53) oe, 180 - " 37 ", sight of 37 <br> A1 cao |
| :---: | :---: | :---: | :---: | :---: |
| 38 |  | $\begin{aligned} & 3.37,3.7, \\ & 7.03,7.373, \\ & 7.7 \end{aligned}$ | 1 | B1 <br> Accept: Clear indication of correct answer but must be in ascending order |
| 39a |  | $(-3,2)$ | 1 | B1 <br> Accept: Unambiguous answer written on the diagram and omitted brackets |
| 39b |  | (0, -4) | 1 | B1 <br> Accept: Unambiguous answer written on the diagram and omitted brackets |
| 40a |  | 27 | 1 | B1 |
| 40b |  | $40-53$ <br> inclusive | 1 | B1 accept any integer in the range 40-53 inclusive |
| 41a |  | 3-5 | 1 | B1 accept any measurement in the range 3 cm inclusive -5 cm exclusive |
| 41b |  | $\begin{aligned} & 15-16.5 \\ & \text { exclusive } \end{aligned}$ | 1 | B1 accept any measurement in the range 15-16.5 exclusive |


| 41c |  | $12.5-14.5$ | 1 | B1 accept any <br> measurement in the range <br> $12.5-14.5 \mathrm{~cm}$ |
| :--- | :--- | :--- | :--- | :--- |

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