

Examiners' Report/ Principal Examiner Feedback

Summer 2012

Primary and Lower Secondary Curriculum (PLSC) Year 6 Mathematics Achievement Test (JMA01) Paper 01

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#### **General Comments**

This was the first sitting of a brand new achievement test for pupils at the end of Year 6; the overall performance was encouraging, the majority of candidates attempted every question. The test allowed candidates to achieve P1, P2 or P3.

The paper was divided into two sections; the first being multiple choice and designed for OMR. The candidates on the whole provided answers correctly identified for the OMR reader. On occasion answers were not clear or more than one offered.

In Section B, for the most part candidates made a good attempt at this paper, with the majority providing an answer for every question. Some candidates made use of the space provided on the question paper to show their working. However, the lack of visible working penalised some students as marks for method could not be awarded and potential transcription errors could not be identified as previous steps were not shown.

Even on low scoring scripts, candidates tended to score well on the basic arithmetic questions (such as 21, 24 and 32)

# **Report on individual Questions**

# **Question 21**

An extremely well answered question with the vast majority of candidates answering correctly.

# **Question 22**

Again, the majority of candidates identified the correct answer.

# **Question 23**

Where this question was tackled correctly, many students gained 1 mark for identifying Sara and Jana while not as many remembered to identify Mariam on the sorting diagram. There were quite a few students who used the information as presented on the table trying to fit '2 brothers', '0 sisters' etc onto the sorting diagram.

# **Question 24**

Most candidates scored full marks on this question.

#### Question 25

On the whole, students answered this question and gained the mark. Only being a 1 mark question both steps were required for the mark to be gained. There were a number of students who calculated 35% + 25% and left 60% as their answer, rather than calculating 'the rest' for Mohamed.

### Question 26

This question provided mixed responses. There did not seem to be a pattern to candidates scoring 1, 2 or 3 marks, however the majority of candidates did manage to score at least one mark. Yellow was regularly given as an incorrect response for part (c).

# **Question 27**

This was one of the questions where lack of working prevented marks being awarded. 24 was a regularly seen incorrect answer but without working no marks could be considered. Where there was working seen candidates tackled this question in many ways. 15+6=21 being a common mistake as well as dividing by 4.

# **Question 28**

The majority of students managed to draw a rectangle on the grid provided, although these were not always drawn with a ruler or completely correctly.

# **Question 29**

Another arithmetic question answered very well. The students again rarely showed their working, however, managed to present the correct responses. Where full marks were not gained it appeared that the students mixed up < and >. Occasionally incorrect arithmetic allowed students to gain 1 mark for two correct responses.

# **Question 30**

This question was regularly left or missed out. Many candidates managed to list all factors for 30 and all factors for 45, but did not complete the question by showing which were common to both. Some candidates managed to gain 1 mark on this question for identifying 3 factors, usually omitting 1 or 15.

# **Question 31**

The majority of candidates offered answers for this question, however many did not gain both marks. More candidates recognised right-angled triangles than isosceles.

# **Question 32**

An extremely well answered question. The majority of candidates gained both marks here. Where errors were made there was usually no working shown to look for transcription errors, regularly 611 seen as an incorrect answer for part (a) which could have been worked out correctly and copied down wrong, which would have gained the mark.

### **Question 33**

This was not a well answered question. Part (a) regularly saw 670 as an incorrect response, for  $(\$60+\$7)\times10$ . Part (b) saw even less correct responses and more varied approaches, regularly seeing candidates not realising that the \$60 room hire cost needed to be subtracted before dividing by 7.

### **Question 34**

This was a poorly answered question with very few candidates explaining that 1/3 was equivalent to 0.33(33...) therefore greater than 0.3 or that 1/3 = 10/30 and 0.3 = 3/10 = 9/30. The majority of candidates chose '1/3 equals 0.3' usually attempting to explain that 1/3 as a decimal rounds to 0.3. Another common incorrect response was to offer '1/3 is greater than 0.3' but explain that '1/3 as a decimal is 1.3; therefore 1/3 is greater than 0.3'

### **Question 35**

Candidates attempted this in a variety of ways with many actually gaining the first mark for Sarah = 100. The follow on was extremely mixed with the majority of candidates not realising that the following step was to subtract their 100 from 250 and work next with 150 sweets.

Occasionally candidates completed their working correctly (not always showing it on their script) but presented the amounts for Fatima and Aya the wrong way round, this gained them one of the two marks. A commonly incorrect response was to have Sarah = 100, Fatima = 150 Aya = 0. This, and other examples of totalling 250, did gain a follow through mark for the candidate realising that the three amounts did need to total 250.

# **Question 36**

In part (a) numerous candidates did not convert the metric units into like units ( $m \rightarrow cm / cm \rightarrow m$ ) and attempted to work with mixed units. Higher level candidates managed to recognise the need for conversion and scored the mark. Part (b) proved to be a very challenging question at this level, very few candidates managed to score the mark here.

# **Question 37**

Most candidates recognised that a the shape was a triangle the angle was a right angle and used this information to add  $90^{\circ}$  and  $53^{\circ}$ , working out that the smaller missing angle was  $37^{\circ}$ . This scored one mark, as many left this as their answer or attempted to work out further but offered incorrect responses. Many candidates did go on to work with the angle of a straight line and work out the correct value for  $x = 143^{\circ}$ .

## **Question 38**

A badly answered question, with many candidates putting 3.7 before 3.37 or 7.373 last rather than 7.7. This was an excellent discriminator for straight forward ordering of decimal numbers.

### **Question 39**

More students gained marks on part (b) of this question. The first part required more work to work out the missing co-ordinates. Part (a) was slightly easier as many recognised that x=0, as the point was placed on the axis, some confusing the point being on the y-axis as y=0 though. Many candidates left their answers without brackets, which was condoned and gained the mark for the correct values for x and y being given in the correct order.

# **Question 40**

Part (a) saw answers of ¼ or 90 regularly, recognising that running did take up 25% of the pie chart but not knowing how to work with the data and information. In part (b) candidates gained more marks; a large range allowed many more students to score.

# **Question 41**

This question varied in the allocation of marks with no particular patterns shown. Part (a) offered regular answers of 5, which did not fall within the required range therefore not scoring the mark, as students needed to be aware that the dotted line for Yousef did not reach 55. Part (b) saw 15 given as the most common incorrect result, again with students not realising that the two lines did not cross exactly on the line. In part (c) 87 and 88 were regularly offered as incorrect responses, where candidates had misunderstood the question and just read the length at 2 years.

# **Grade Boundaries**

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