

Examiners' Report/
Principal Examiner Feedback

Summer 2013

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

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Primary and Lower Secondary Curriculum
Year 6 Mathematics (JMA01)
Paper 1 June 2013

General Comments

This was the second sitting of the achievement test for students at the end of Year 6; this year the overall performance was encouraging with the majority of students attempting all questions. The test allowed students to achieve P1, P2 or P3 and a good mix of achievement was seen.

The paper is divided into two sections with the first being multiple choice. On occasion answers were not clear or more than one was offered. There were a number of students who circled the correct multiple choice answers or marked more than one response, also on occasion the student chose to write the correct answer. As this paper is still being traditionally marked in both sections, examiners were able to award marks to these students, however students need to be made aware of these issues for future papers.

In the second section, for the most part students made a good attempt at this paper, with the majority providing an answer for every question. Some students made use of the space provided on the question paper to show their working. However, the lack of visible working affected some students as marks for method could not be awarded and potential transcription errors could not be identified as previous steps were not shown. There were 7 questions that offered a mark for an appropriate method to reach a solution; very few students who presented an incorrect answer were able to gain these marks due to the lack of working shown. On occasion, students had set out their working in pencil then rubbed it all out and written their final answer in pen. Students must be reminded that their working can gain them method marks and therefore be encouraged to show how they are working out questions.

Report on Individual Questions

Question 21

A well answered question with the vast majority of students gaining at least one mark. Some students did not realise that the middle row needed to total 12 and therefore scored 0; for a student who did not get a fully correct answer but did realise this, 1 mark was awarded.

Question 22

A well answered question, in both parts with students realising that they needed to total all colours and transfer the information to the graph using a correct scale.

Question 23

Unfortunately a large number of students only circled one response for this question, however this was taken into account and 1 mark awarded if the circled response was one of the correct answers and no other response was offered.

Question 24

For a P1 level question, this was found to be challenging; many students offered letters in more than one box which showed a lack of understanding.

Question 25

On the whole, students answered this question and gained the mark. Some students lost out on the mark by offering the time as 4:75 which did show an initial understanding but for a single mark question could gain no marks.

Question 26

This question provided mixed responses. As well as the correct answer of 43 for 1 mark; some students circled one of the three statements, some provided an answer for each statement but did not understand how to use their answers and some students offered an answers to one of the statements – each of which gained 0 marks.

Question 27

This was a well answered question with students being awarded the mark as long as there was a clear intention to identify Shape 2 as the correct answer. This was accepted in many different forms; circled, drawn, written and underlined.

Question 28

This question was found to be challenging. Many students realised they needed to subtract 20c to get \$1.80 but did nothing with this value and a complete and correct method was needed to award 1 mark; requiring the \$1.80 to be divided by 3.

Many variations of 60c were accepted for the correct answer due to confusion in currencies and a 'special case 1 mark' was allowed for identifying the final answer of 60.

Question 29

This question was answered in a variety of ways, depending on how the student appeared to have read and understood the actual question. There were 2 marks awarded for a correct response of 9 and 1 method mark could be gained for a complete and correct method.

Students were also able to gain 1 mark if they misinterpreted the question giving a final answer of 12 provided that they had working showing that their 20% walking was from 15 students (half of the group); also 1 mark was awarded if the student had offered 21 as their answer, showing that they had found 70%.

Question 30

A very well answered question; the majority of students gained the available mark.

Question 31

A good proportion of students scored on this question; however a common error was to give the answer 3.

Question 32

This was a challenging question; many students chose to double 5.9 (=11.8), double 9.9 (=19.8) then find the difference giving 8 as a final answer. Very few scored 1 mark for a correct and complete method.

Question 33

Trial and error was a common method for this question. Students did not always realise which number they were looking for and either offered no definite answer or 5 as their final answer, scoring only the method mark.

Question 34

This was a challenging question with very few students realising what they needed to do.

Question 35

There was a good proportion of correct responses to this question. Where incorrect answers were seen, many students managed to provide factors of 12, not always offering three different ones totalling 12; unfortunately as a 1 mark question the correct answer was required to gain the mark.

Question 36

In the first part of this question, most students recognised that Kiki's graph 'best showed the results'. The second part however was found to be more challenging as students struggled to explain that it was the scale that made the graph better; this was taken into account with the allowance of 'easier to read' and 'more clear' being accepted.

Question 37

This was a well answered question.

Question 38

Students answered this question well with many offering the correct answer of 1, 3, 3 or 3, 3, 5 gaining 2 marks. Most students managed to pick up 1 mark on this question by either offering a 'range of 2' in their answer or a 'mode of 3'.

Question 39

This was a challenging multi-part question. The answer 2 was regularly seen as a final answer. Very few students showed any working out, which hindered their responses. It appeared that students were unaware of how to begin to tackle this type of question.

Question 40

On the whole this was a well answered question with many students managing to gain at least 1 mark in either part (a) or part (b).

Question 41

The most able students presented the answer 108° clearly with minimal working required. Other students offered 144° or 36° or sometimes both, but did not realise that they needed to subtract. In order to gain the method mark students needed to show a correct and complete method. Other common errors included finding 144° for the large area and realising that the small square had sides of 6cm, but finding the perimeter (=24) and subtracting 24 from 144.

A few students chose to work out the area of $\frac{3}{4}$ of the large square or 3 lots of 36° .

Question 42

This was found to be a challenging question. Even though a correct answer of 80° in part (a) would have made parts (b) and (c) straight forward; various options were accepted depending on the interpretation of part (a). Even with an option of 4 answers for part (a) many students did not score the first mark. Few students scored the mark for part (b) with a common incorrect answer of 6 being given, usually with sketching showing 3 more triangles on the diagram. A follow through mark was allowed in the explanation for part (c) however the majority of students did not know that they needed to work with 360° .

Question 43

Many students did manage to answer this question. Some students gave their answer as the original example, which did not show that Paulo's statement was not always true. A number of students realised that they needed to use a decimal to produce a smaller number as their answer.

Grade Boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:

<http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx>

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