



**General Certificate of Secondary Education
June 2011**

Mathematics

43601F

(Specification 4360)

Unit 1: Statistics and Number (Foundation)

Report on the Examination

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General

Candidates found this examination accessible with many of the early questions extremely well done. Some of the later questions were found to be challenging but many very good attempts were made on all questions. Many candidates would benefit from showing more working so that part marks could be awarded even when an answer is wrong. Poor arithmetic was also a concern, even though this is a calculator paper. Candidates should continue to hone non-calculator skills even when preparing for a calculator paper as many will choose to attempt questions often without using their calculator.

Topics that were well done included:

- frequency tables
- pictograms
- interpreting dual bar charts
- problem solving with money.

Topics which candidates found difficult included:

- interpreting pie charts
- comparing ratios
- estimating the mean from a frequency polygon.

Question 1

This question was an excellent settler for candidates who obtained marks for completing familiar tasks. Some candidates did not simplify their fraction in part (a)(ii). In part (c), some candidates divided the wrong way round and were not alerted to a possible error by their answer. Other candidates struggled with the number of zeros in eight million. Even though part (d) was less familiar in style it was well answered.

Question 2

This question was well answered. The most common error was to transfer 20p from Ella to Jayden not realising that this meant Ella's total had gone down.

Question 3

Parts (a) and (b) were very well answered. In part (c) nearly all candidates correctly drew the 'apple' bar at 2, and most had 'banana' as double 'orange'. Few combined this with having the correct overall total as well. Very few candidates showed any working and relied entirely on marks being achieved from their bar drawings.

Question 4

Part (a) was well answered. In part (b) few candidates realised that the angle had to be measured in order to obtain a comparison between the angles and the frequencies. Instead many appeared to either guess or estimate. Some candidates obtained the correct answer to part (c) by rather complex methods instead of simply dividing by 4.

Question 5

Part (a) was a good discriminator. More candidates were now aware of the requirements of this type of question. Many still made unsupported statements and others calculated measures and then made no further comment. Less common this time were observational statements which were not given in a comparative way. In part (b), there were some very

good answers but also some confusion about the role of the range in deciding who they would choose. Answers involving the means were far more often successful.

Question 6

A very common error was to divide by 4 rather than 3. Some candidates divided by 3 but did not go on to work out the total.

Question 7

A variety of methods were seen, the most common being to work on the one ticket and scale up. Some divided £100 by 4 instead but some worked on one ticket and left too much unseen to justify fully their answer. Some attempts were seen where the percentage increase was worked out for the cost becoming £100 and this was then compared to 6%. Some candidates did good work but then did not answer the question.

Question 8

The best answers in part (a) showed 80% and 20% but many did not show this convincingly. Most knew what was required here but often candidates did not identify whether a given student was a GCSE History student and also thought Winston Churchill was real. Responses to part (c) were generally poor, as candidates did not have 17:3 and 80% in a directly comparable form.

Question 9

Part (a) was challenging for many candidates but part (b) provided a good range of scoring solutions. Many showed a good working knowledge of the parts of the Data Handling Cycle and some went into more detail than was required. Others did not contextualise their answers so could only achieve part marks.

Mark Ranges and Award of Grades

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