

# Principal Examiner Feedback

November 2010

GCSE

GCSE Mathematics (2381)

Foundation Paper (5381F/05)

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## **1. PRINCIPAL EXAMINER'S REPORT - FOUNDATION PAPER 5**

### **1.1 GENERAL COMMENTS**

- 1.1.1 The great majority of candidates entered for this paper found it accessible.
- 1.1.2 The vast majority of candidates attempted nearly all the questions, as blank responses were only rarely seen for any of the questions.
- 1.1.3 It was good to see that most candidates had the correct materials required for the examination.
- 1.1.4 Questions 1, 2, 3 and 4a in Sections A and questions 1, 2a, 3 in Section B were tackled with the most success.
- 1.1.5 Questions 4b and 5 in Section A were less successfully completed whilst in Section B questions 2b, 4 and 5 caused the most problems.

### **1.2 REPORT ON INDIVIDUAL QUESTIONS**

#### **1.2.1 Question A1**

A very well understood question with a success rate of over 95% in parts (a) and (b)(i) though 21% of candidates made an error in trying to find green as the answer to part (b)(ii).

#### **1.2.2 Question A2**

Although this type of question is quite common on our papers 12% of candidates could not cope with finding information from a table when three items had to be compared.

#### **1.2.3 Question A3**

A well understood question. However though 84% of candidates scored full marks 7% of candidates lost a mark usually for including two boys or two girls in the combination. A few of these candidates also did not write down an additional 5 entries in the list or wrote down up to two wrong combinations.

#### **1.2.4 Question A4**

In part (a) pine was given as the correct answer by 98% of candidates. Of the 2% of candidates who scored no marks, rowan was given as the most popular wrong answer. In part (b) only 48% of candidates scored full marks. Correct working was seldom seen with many candidates writing 720 as their answer doubling the  $360^\circ$  for the sum of the angles around a point.

### 1.2.5 Question A5

Answers to this question were very mixed. 27% of candidates gained full marks for the correct answer of 34. Many candidates did find the midpoint of the group and multiplied the midpoint by the frequency and scored 2 marks. Those who then went on and divided by 30 then scored another mark. Many candidates started with mid-points (or sometimes upper or lower bounds) and attempted to multiply by frequencies (often with errors in mid-points or multiplication) and did gain credit for this approach. Candidates often divided their total by a variety of numbers, with 5 and 150 being the most common wrong ones. Some candidates often started with promise and completed the table correctly but then abandoned their attempts and chose wrong methods such as  $30 \div 5$  as a new method or selected the modal class or simply gave wrong answers such as 6. Unfortunately those candidates presenting a choice of solution scored no marks.

### 1.2.6 Question B1

A well understood question though some candidates were confused with the key when they had to complete the histogram in part (b) with only 86% of candidates gaining both marks.

### 1.2.7 Question B2

Full marks were gained by 73% of candidates for completing the table correctly with a further 10% gaining the 2 marks for completing 4 or 5 cells correctly. Part (b) was only correctly answered by 52% of candidates. Many candidates gave the answer as 53, the number of people who did not have coffee.

### 1.2.8 Question B3

A well understood question with 71% of candidates giving the correct answer. It is gratifying to see more candidates giving the answer as a fraction with fewer candidates giving answers such as 3 out of 8 or 3 in 8 etc. These candidates did gain 1 mark in this instance. One mark was also given for giving the correct numerator or denominator as long as the resulting fraction was less than 1 and this one mark was gained by 11% of candidates.

### 1.2.9 Question B4

This question was only understood by half the candidates with the median often not well understood and where it was, the key was not used in giving the answer as 4 instead of 34 was often seen. In part (b) 50% of candidates were able to correctly explain the lack of use of the stem.

### 1.2.10 Question B5

The correct relationship in part (a) caused some confusion in candidate's minds as to marks going up and going down and some who gave the answer as positive without the correlation being present. The line of best fit was correctly drawn by the majority of candidates and the final reading from their graph was also well understood. The most common error seen was in the reading from the scale on the Science axis.

## 2. STATISTICS

### 2.1. MARK RANGES AND AWARD OF GRADE

Unit/Component	Maximum Mark (Raw)	Mean Mark	Standard Deviation	% Contribution to Award
5381F/05	30	21.5	5.8	20
5381H/06	30	17.3	7.1	20
5382F/07	25	15.7	4.1	15
5382H/08	25	14.8	5.5	15
5383F/09	25	13.4	5.2	15
5383H/10	25	15.4	5.6	15
5384F/11F	60	33.2	10.5	25
5384F/12F	60	39.4	11.5	25
5384H/13H	60	28.8	11.8	25
5384H/14H	60	37.6	10.6	25

### GCSE Mathematics Grade Boundaries for 2381- November 2010

The table below gives the lowest raw marks for the award of the stated uniform marks (UMS).

#### Unit 1 - 5381

	A*	A	B	C	D	E	F	G
UMS (max: 55)				48	40	32	24	16
Paper 5381F				27	22	18	14	10
UMS (max: 80)	72	64	56	48	40	36		
Paper 5381H	29	24	17	11	7	5		

#### Unit 2 Stage 1 - 5382

	A*	A	B	C	D	E	F	G
UMS (max: 41 )				36	30	24	18	12
Paper 5382F				21	17	14	11	8
UMS (max: 60 )	54	48	42	36	30	27		
Paper 5382H	23	19	15	11	9	8		

Unit 2 Stage 2 - 5383

	A*	A	B	C	D	E	F	G
UMS (max: 41 )				36	30	24	18	12
Paper 5383F				19	15	11	8	5
UMS (max: 60 )	54	48	42	36	30	27		
Paper 5383H	24	21	16	12	8	6		

Unit 3- 5384

	A*	A	B	C	D	E	F	G
5384F_11F				41	33	25	17	9
5384F_12F				49	40	31	23	15
5384H_13H	51	40	29	19	10	5		
5384H_14H	58	48	38	29	17	11		

	A*	A	B	C	D	E	F	G
UMS (max: 139 )				120	100	80	60	40
5384F				90	73	56	40	24
UMS (max: 200)	180	160	140	120	100	90		
5384H	108	88	68	48	27			

UMS BOUNDARIES

Maximum Uniform mark	A*	A	B	C	D	E	F	G
400	360	320	280	240	200	160	120	80

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