

Mark Scheme (Results)

November 2010

GCSE

GCSE Mathematics (5381F)
Paper 5B

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NOTES ON MARKING PRINCIPLES

1 Types of mark

M marks: method marks

A marks: accuracy marks

B marks: unconditional accuracy marks (independent of M marks)

2 Abbreviations

cao - correct answer only

ft - follow through

isw - ignore subsequent working

SC: special case

oe - or equivalent (and appropriate)

dep - dependent

indep - independent

3 No working

If no working is shown then correct answers normally score full marks

If no working is shown then incorrect (even though nearly correct) answers score no marks.

4 With working

If there is a wrong answer indicated on the answer line always check the working in the body of the script (and on any diagrams), and award any marks appropriate from the mark scheme.

If working is crossed out and still legible, then it should be given any appropriate marks, as long as it has not been replaced by alternative work.

If it is clear from the working that the “correct” answer has been obtained from incorrect working, award 0 marks. Send the response to review, and discuss each of these situations with your Team Leader.

If there is no answer on the answer line then check the working for an obvious answer.

Any case of suspected misread loses A (and B) marks on that part, but can gain the M marks. Discuss each of these situations with your Team Leader.

If there is a choice of methods shown, then no marks should be awarded, unless the answer on the answer line makes clear the method that has been used.

5 Follow through marks

Follow through marks which involve a single stage calculation can be awarded without working since you can check the answer yourself, but if ambiguous do not award.

Follow through marks which involve more than one stage of calculation can only be awarded on sight of the relevant working, even if it appears obvious that there is only one way you could get the answer given.

6 Ignoring subsequent work

It is appropriate to ignore subsequent work when the additional work does not change the answer in a way that is inappropriate for the question: e.g. incorrect canceling of a fraction that would otherwise be correct

It is not appropriate to ignore subsequent work when the additional work essentially makes the answer incorrect e.g. algebra.

Transcription errors occur when candidates present a correct answer in working, and write it incorrectly on the answer line; mark the correct answer.

7 Probability

Probability answers must be given as fractions, percentages or decimals. If a candidate gives a decimal equivalent to a probability, this should be written to at least 2 decimal places (unless tenths).

Incorrect notation should lose the accuracy marks, but be awarded any implied method marks.

If a probability answer is given on the answer line using both incorrect and correct notation, award the marks.

If a probability fraction is given then cancelled incorrectly, ignore the incorrectly cancelled answer.

8 Linear equations

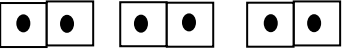

Full marks can be gained if the solution alone is given on the answer line, or otherwise unambiguously indicated in working (without contradiction elsewhere). Where the correct solution only is shown substituted, but not identified as the solution, the accuracy mark is lost but any method marks can be awarded.

9 Parts of questions

Unless allowed by the mark scheme, the marks allocated to one part of the question CANNOT be awarded in another.

10 Range of answers

Unless otherwise stated, when an answer is given as a range (e.g. 3.5 - 4.2) then this is inclusive of the end points (e.g. 3.5, 4.2) and includes all numbers within the range (e.g. 4, 4.1)

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Question	Working	Answer	Mark	Notes
B1 (a)(i)	Thursday Friday	16	2	B1
(ii)		12		B1
(b)			2	B1 for 3 lots of 2 squares with 6 dots
				B1 for 1 square with 1 dot
B2 (a)		$ \begin{array}{r} \times 17 \times \quad \times \\ 11 \times 9 \quad 43 \\ \hline \times 40 13 \quad \times \end{array} $	3	B3 for all 6 correct (B2 for 4 or 5 correct) (B1 for 2 or 3 correct)
(b)		21	1	B1 for 21 or ft from 4 + "17"
B3		$\frac{3}{8}$	2	M1 for attempt to write correct fraction $\frac{x}{8}$ ($x < 8$) or $\frac{3}{x}$ ($x > 3$) A1 for equivalent fraction, decimal or percentage = $\frac{3}{8}$ (SC B1 for 3 in 8 or 3 out of 8 or 3 : 8)
B4 (a)		34	1	B1 cao
(b)		Correct reason given	1	B1 for reason e.g. stem not used, or $4 \nmid 9 = 49$ e.g. range is 49 – 11 oe, etc e.g. range is 38

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Question	Working	Answer	Mark	Notes
B5 (a)		Valid statement	1	B1 for statement eg the higher the maths mark the higher the science mark, or the lower the science mark the lower the maths mark or as the maths mark goes up the science mark goes up or as the maths mark goes down the science mark goes down etc. (accept positive correlation)
(b)		Line of best fit	1	B1 for a line drawn so that it passes between (5, 20) and (5, 30) and between (50, 62) and (50, 76)
(c)		$36 \leq \text{answer} \leq 42$	1	B1 for $36 \leq \text{answer} \leq 42$ or ft from their straight line segment of positive gradient tolerance ± 1 mark

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