

# Mark Scheme (Results)

November 2010

GCSE

GCSE Mathematics (5381H)

Paper 6A

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- 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 a 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)

5381H/6A				
Question	Working	Answer	Mark	Notes
A1	$1 - (0.5 + 0.2 + 0.1)$ $= 1 - 0.8$	0.2	2	M1 for $1 - (0.5 + 0.2 + 0.1)$ oe A1 for 0.2 oe seen in either the table or on the answer line
A2 (a)		$15 < n \leq 25$	1	B1 for selecting correct class interval e.g $15 < n \leq 25$ or $15 - 25$ oe
(b)		$35 < n \leq 45$	1	B1 for selecting correct class interval e.g $35 < n \leq 45$ or $35 - 45$ oe
(c)	$( (10 \times 1) + (20 \times 10) + (30 \times 3) + (40 \times 8) + (50 \times 8) )$ $= 10 + 200 + 90 + 320 + 400$ $= 1020$ $1020 \div 30 = 34$	34	4	M1 for $fx$ with $x$ consistent within intervals (including end points) condone one error in multiplication M1 (dep) for use of midpoints condone one error M1 (dep on 1 <sup>st</sup> M1) for use of $\sum fx \div \sum f$ A1 cao NB 1020 seen with an answer of 204 scores 2 marks An answer of 204 without working scores no marks The common response of $30 \div 5 = 6$ also scores 0.
A3 (a)	$UQ - LQ = 94 - 78$	16	2	M1 for establishing the Upper and/or lower quartile as 94 or 78 or sight of 94 or 78 A1 for 16 cao
(b)	$40 - 37$	3	2	M1 for establishing the number of people who weighed up to 100 kg or sight of $37 \pm 1$ or 40 - "37" A1 for $3 \pm 1$

Question	Working	Answer	Mark	Notes
A4		heights of 3, 5, 4, 1 with correct widths	3	<p>M1 for at least 2 frequency <math>\div</math> class width or 2 heights correctly drawn with height stated or calculated or heights in the ratio 3 : 5 : 4 : 1 A2 for all bars correct (A1 for 2 bars correct)</p> <p>Alternative if no working seen B3 for fully correct histogram with heights in the ratio 3:5:4:1 B2 for nearly correct histogram with 3 bars out of 4 correct with 3 heights out of 4 in the ratio 3:5:4:1 B1 for partially correct histogram with 2 bars out of 4 correct with 2 heights out of 4 in the ration 3:5:4:1</p> <p>NB No marks awarded for a bar chart</p>



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