Pearson

Mark Scheme (Results)

Summer 2017

Pearson Edexcel GCSE
In Mathematics A (1MA0)
Higher (Non-Calculator) Paper 1H

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NOTES ON MARKING PRINCIPLES

1 All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.

2 Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.

3 All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.

4 Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.

5 Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

6 Mark schemes will indicate within the table where, and which strands of QWC, are being assessed. The strands are as follows:

i) *ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear*
Comprehension and meaning is clear by using correct notation and labeling conventions.

ii*) select and use a form and style of writing appropriate to purpose and to complex subject matter*
Reasoning, explanation or argument is correct and appropriately structured to convey mathematical reasoning.

iii) *organise information clearly and coherently, using specialist vocabulary when appropriate*.
The mathematical methods and processes used are coherently and clearly organised and the appropriate mathematical vocabulary used.

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If working is crossed out and still legible, then it should be given any appropriate marks, as long as it has not been replaced by alternative work.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

8 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.

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

10 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.

11 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.

12 Parts of questions

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

13 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)

Guidance on the use of codes within this mark scheme
M1 – method mark A1 – accuracy mark B1 – Working mark C1 – communication mark QWC – quality of written communication oe – or equivalent cao – correct answer only ft – follow through sc – special case dep – dependent (on a previous mark or conclusion) indep – independent isw – ignore subsequent working

Paper: 1MA0/1H				
Question	**Working**	**Answer**	**Mark**	**Notes**
1 (a)		x^{12}	1	B1 cao
(b)		2	1	B1 cao
(c)		18	1	B1 cao
(d)		example given	1	B1 for stating a value of n for which $6n + 1$ is not prime eg 4, 8, 9, 14, 19, ... ,1000 etc

Paper: 1MA0/1H				
Question	**Working**	**Answer**	**Mark**	**Notes**
*2		Yes (supported)	5	M1 for method to calculate profit on one laptop e.g. 400 × 0.3 oe (= 120) **or** 400 × 0.15 oe (= 60) M1 for method to calculate selling price of one of the two deals e.g. 400 × 1.3 oe (= 520) **or** 400 × 1.15 oe (= 460) M1 for method to calculate the total selling price of one laptop e.g. 40 × 400 × 1.3 oe (= 20 800) **or** 10 × 400 × 1.15 oe (= 4600) M1 for total income e.g. "20 800" + "4600" C1 for Yes **and** (£)25 400 **or** Yes with £400 more **OR** M1 for a method for the profit on one laptop e.g. 400 × 0.3 oe (=120) **or** 400 × 0.15 oe (= 60) M1 for a method for the total profit for one of the two deals e.g. 40 × "120" (= 4800) **or** 10 × "60" (= 600) M1 for a method for total profit "4800" + "600" (= 5400) M1 for a method for target profit e.g. 25 000 − 400 × 50 (= 5000) C1 for Yes with (£)5400 **and** (£)5000 **or** Yes with £400 more **OR** M1 for a method for the profit on one laptop e.g. 400 × 0.3 oe (= 120) **or** 400 × 0.15 oe (= 60) M1 for a method for the total profit for one of the two deals e.g. 40 × "120" oe (= 4800) **or** 10 × "60" (= 600) M1 for 50 × 400 + "4800" or 50 × 400 + "600" M1 for 50 × 400 + "4800" + "600" (= 25400) C1 for Yes **and** (£)25 400 **or** Yes with £400 more

Paper: 1MA0/1H				
Question	**Working**	**Answer**	**Mark**	**Notes**
3 (a)		Frequency polygon	2	B2 correct frequency polygon (B1 for points plotted correctly but not joined OR for points plotted at the correct heights, consistently placed within the class intervals (including ends) and joined OR for an otherwise correct frequency polygon with one point incorrect OR correct frequency polygon with first and last points joined directly) NB: ignore parts of graph drawn to the left of the 1st point or the right of the last point; ignore any histograms drawn.
(b)		$60 < A \leq 80$	1	B1 ft frequency polygon
4		−2	3	M1 for expanding brackets eg $4x + 12$ $(= 2x + 8)$ or dividing by 4 as a first step eg $x + 3 = \frac{2x}{4} + \frac{8}{4}$ M1 ft their equation of the form $ax + b = 2x + 8$ or $x + 3 = ax + b$ for isolating terms in x and numbers e.g. $4x - 2x = 8 - 12$ seen as part of their solution oe A1 cao
5		42	3	M1 for a method to find angle ABD eg $ABD = 360 - 130 - 130 - 40$ $(= 60)$ or angle DBC eg $DBC = 180 - 2 \times 72$ $(= 36)$ (may be on the diagram) M1 for a complete method eg (180 – "60" − "36") ÷ 2 A1 cao OR M1 for a method to find angle ABC eg $ABC = 540 - 130 - 40 - 130 - 72 - 72$ $(= 96)$ M1 for a complete method eg (180 − "96") ÷ 2 A1 cao

Paper: 1MA0/1H				
Question	**Working**	**Answer**	**Mark**	**Notes**
6 (a)		40 100	3	M1 for method to find unit weight eg 60 ÷ 3 (= 20) M1 for complete method to find weight of one of the other ingredients eg "20" × 2 (= 40) or "20" × 5 (= 100) A1 cao
(b)		1.44	3	M1 for a complete method to work out the weight of nuts needed eg 300 ÷ (3 + 2 + 5) × 3 (= 90) or 300 ÷ (60 + "40" + "100") × 60 (= 90) M1 for a complete method to work out the cost eg (800 ÷ 500) × "90" (= 144) A1 cao
7		15 200	3	M1 for a method to obtain at least 2 different areas from 50×80 (= 4000), $\frac{1}{2} \times 40 \times 60$ (= 1200), 60×80 (= 4800) M1 (dep on M1) for adding at least 4 correct face areas A1 cao
8 (a)		Transformation	2	B2 for a triangle with vertices at (−1, 1), (−2, 3) and (−2, 1) (B1 for a triangle in correct orientation or rotated 90° clockwise centre the origin)
(b)		Description	3	B1 Enlargement B1 Scale factor 3 (accept × 3) B1 Centre (1,0) NB: More than one transformation is B0

Paper: 1MA0/1H				
Question	**Working**	**Answer**	**Mark**	**Notes**
9		$\frac{4}{15}$	3	M1 for a method to find the total number of people eg 3×5 (= 15) or $\frac{5}{15} = \frac{1}{3}$ M1 (dep) for "15" – 5 – 6 (= 4) A1 oe OR M1 for a method to find prob (boy) eg $\frac{6}{5} \times \frac{1}{3}$ (= $\frac{6}{15}$) M1 (dep) for $1 - \text{“}\frac{6}{15}\text{”} - \frac{1}{3}$ A1 oe OR M1 for an expression for the number of adults eg $\frac{5}{5+6+x}$ M1 (dep) for $\text{“}\frac{5}{5+6+x}\text{”} = \frac{1}{3}$ or $x = 4$ A1 oe **SC:** B2 for $\frac{4}{n}$ where $n > 4$, $n \neq 15$

Paper: 1MA0/1H				
Question	**Working**	**Answer**	**Mark**	**Notes**
10 (a)		$3n - 1$	2	B2 for $3n - 1$ oe (B1 for $3n + k$, k an integer $\neq -1$ or absent)
(b)		Yes	2	M1 for $3n - 1 = 299$ ft if B1 earned in (a) A1 for eg Yes and $n = 100$ oe
(c)		$3(n+1)-1$	1	B1 oe eg $3n + 2$ or ft (a) providing at least B1 earned
11		(102, 104)	3	B1 for (P=) (106, 107) M1 for a complete method eg [104 − ("106" − 104), 105.5 − ("107" − 105.5)] or (A=) (102, y) or (A=) (x, 104) A1 cao
12		270	3	M1 for correct use of formula for volume of a cylinder using exact or (some) approximate figures eg $\pi \times 31^2 \times 97.5$ or $\pi \times 31^2 \times 100$ or using an estimate of π eg $\pi = 3$ in the volume formula M1 for a complete method to find an estimate for the volume in cm^3 with at least 2 values rounded eg $\pi \times 30^2 \times 100$ (= 270 000) eg $3.1 \times 30^2 \times 100$ eg $3 \times 31^2 \times 100$ A1 accept answer in the range 270 − 300 from a method using estimates

Paper: 1MA0/1H				
Question	**Working**	**Answer**	**Mark**	**Notes**
13 (a)		5, −1, 5	2	B2 for all 3 correct (B1 for 1 or 2 correct)
(b)		Correct graph	2	M1 ft for 5, 6 or 7 points plotted correctly, provided at least B1 awarded in (a) A1 for a fully correct graph (no line segments)
(c)		−0.6, 3.6	2	M1 for use of $y = 3$ A1 for −0.5 to −0.7, 3.5 to 3.7 (ft quadratic graph)
14		130	4	M1 for setting up two correct equations eg 3p + 4c = 440 4p + 3c = 470 M1 for adding the two equations eg 7p + 7c = 910 or for a correct method to eliminate one variable (allow one error) M1 for a method to find p + c eg 910 ÷ 7 or for a complete method to find both p and c (p = 80, c = 50) A1 for 130 or £1.30(p) **NB:** Allow any letters for variables. Allow a non-algebraic approach eg 7 kg potatoes and 7 kg carrots costs a total of 910

Paper: 1MA0/1H					
Question		**Working**	**Answer**	**Mark**	**Notes**
15			18	4	M1 for correct initial use of Pythagoras eg $(AB^2 =)\ 10^2 - 6^2$ (= 64) or $AB = 8$ M1 (dep M1) for "$\sqrt{64}$" ÷ 2 (= 4) M1 for method to find area of trapezium eg $\frac{1}{2} \times$ "4" × (6 ÷ 2 + 6) A1 cao OR M1 for correct initial use of Pythagoras eg $(AB^2 =)\ 10^2 - 6^2$ (= 64) or $AB = 8$ M1 (dep M1) for method to find area of ΔABC eg $\frac{1}{2} \times$ "$\sqrt{64}$" × 6 (= 24) or area of ΔAED $\frac{1}{2} \times 6 \div 2 \times$ "4" (= 6) or $24 \times (\frac{1}{2})^2$ (= 6) M1 for a complete method to find area of *EDBC* e.g $\frac{3}{4} \times$ "24" eg "24" − "6" A1 cao
16	(a)	40, 110, 170, 185, 195, 200	Table	1	B1
	(b)		Cumulative frequency diagram	2	M1 ft their cumulative frequency table for at least 5 points plotted correctly at the ends of the intervals provided tables values are cumulative, condoning one arithmetical error, **or** if the shape of the graph is correct for 5 or 6 points plotted not at the ends but consistently within each interval and joined. A1 for a correct graph (allow curve or line segments)
	(c)		40 to 48	2	M1 for reading their cumulative frequency graph from mark of 54 (= 152 to 160) where the points are plotted consistently within each interval and joined. A1 for answer in the range 40 to 48 or ft from their cumulative frequency graph

<table>
<tr><th colspan="5">Paper: 1MA0/1H</th></tr>
<tr><th>Question</th><th>Working</th><th>Answer</th><th>Mark</th><th>Notes</th></tr>
<tr><td>17</td><td></td><td>0.5</td><td>4</td><td>M1 for identifying a common denominator in a correct expression or equation
eg $\frac{4(x+1)}{12}+\frac{3(2x+5)}{12}$ (= 2)
M1 (dep on M1) for expanding both brackets in an equation
eg $\frac{4x+4}{12}+\frac{6x+15}{12}=2$ eg $4x + 4 + 6x + 15 = 12\times 2$
M1 (dep on M1) for isolating “like terms” on each side of an equation
eg $4x + 6x = 24 - 15 - 4$

A1 for 0.5 oe</td></tr>
<tr><td>18 (a)</td><td></td><td>5.4×10^6</td><td>1</td><td>B1 cao</td></tr>
<tr><td>(b)</td><td></td><td>0.00032</td><td>1</td><td>B1 cao</td></tr>
<tr><td>(c)</td><td></td><td>6.3×10^{32}</td><td>2</td><td>M1 for 630×10^{30} oe or figures 63 with $\times 10^n$
A1 for 6.3×10^{32} or 6.30×10^{32}</td></tr>
<tr><td>*19</td><td><table><tr><td></td><td>M</td><td>F</td></tr><tr><td>Median</td><td>40</td><td>40</td></tr><tr><td>Range</td><td>90</td><td>106</td></tr><tr><td>IQR</td><td>31</td><td>42</td></tr></table></td><td>Compare: medians and spread</td><td>3</td><td>C1 for any correct comparison of the medians
C1 for any correct comparison of the IQRs or range
C1 for a comparison of medians, IQRs or ranges written in context</td></tr>
</table>

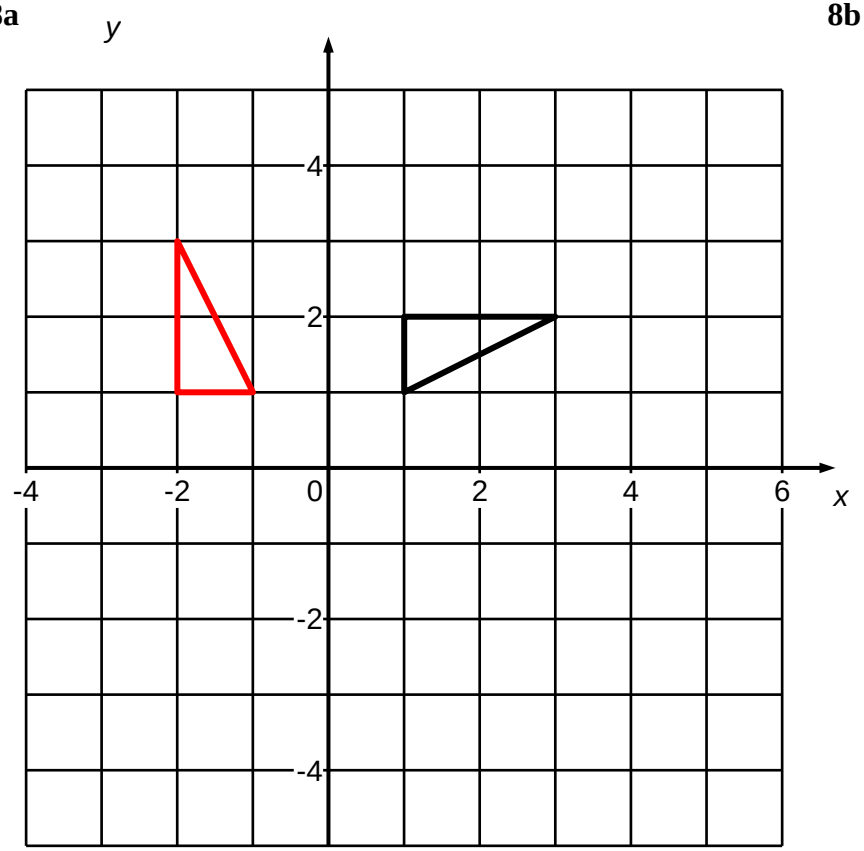
Paper: 1MA0/1H				
Question	**Working**	**Answer**	**Mark**	**Notes**
20 (a)		x^6	1	B1 cao
(b)		$(2y + 1)(y - 3)$	2	M1 for $(2y \pm 1)(y \pm 3)$ or $(2y \pm 3)(y \pm 1)$ A1 cao
21		$16\sqrt{2}$	4	M1 for method to expand $(\sqrt{8} + 2)^2$ with at least 3 correct terms out of 4 terms M1 for method to expand $(\sqrt{8} - 2)^2$ with at least 3 correct terms out of 4 terms M1 (dep on M2) for a method to subtract the two expressions and use of $\sqrt{8} = 2\sqrt{2}$ A1 cao OR M1 for factorising $a^2 - b^2 = (a + b)(a - b)$ M1 for substituting for a and b with simplification (at least 1 of the two terms correct) M1 (dep on M2) for multiplying the 2 terms together and use of $\sqrt{8} = 2\sqrt{2}$ A1 cao

Paper: 1MA0/1H				
Question	**Working**	**Answer**	**Mark**	**Notes**
*22		155°	5	M1 for a method to find angle *AOD* e.g 90 − 40 (= 50) M1 for a complete method to find angle *BCD* eg 360 − '50' (= 310) and '310' ÷ 2 (= 155) A1 for 155 C2 for complete reasons for their method Angle between tangent and radius = 90 Angle at the centre is twice the angle at the circumference oe Angle sum of a triangle = 180 Sum of angles round a point = 360 (C1 for at least two reasons, one of which must be a circle theorem) OR M1 for a method to find angle *AOD* eg 90 − 40 (= 50) M1 for a complete method to find angle *BCD* eg 50 ÷ 2 (= 25) and 180 − '25' (= 155) A1 for 155 C2 for complete reasons for their method Angle between tangent and radius = 90 Angle at the centre is twice the angle at the circumference oe Opposite angles of a cyclic quadrilateral add up to 180 Angle sum of a triangle = 180 (C1 for at least two reasons, one of which must be a circle theorem)

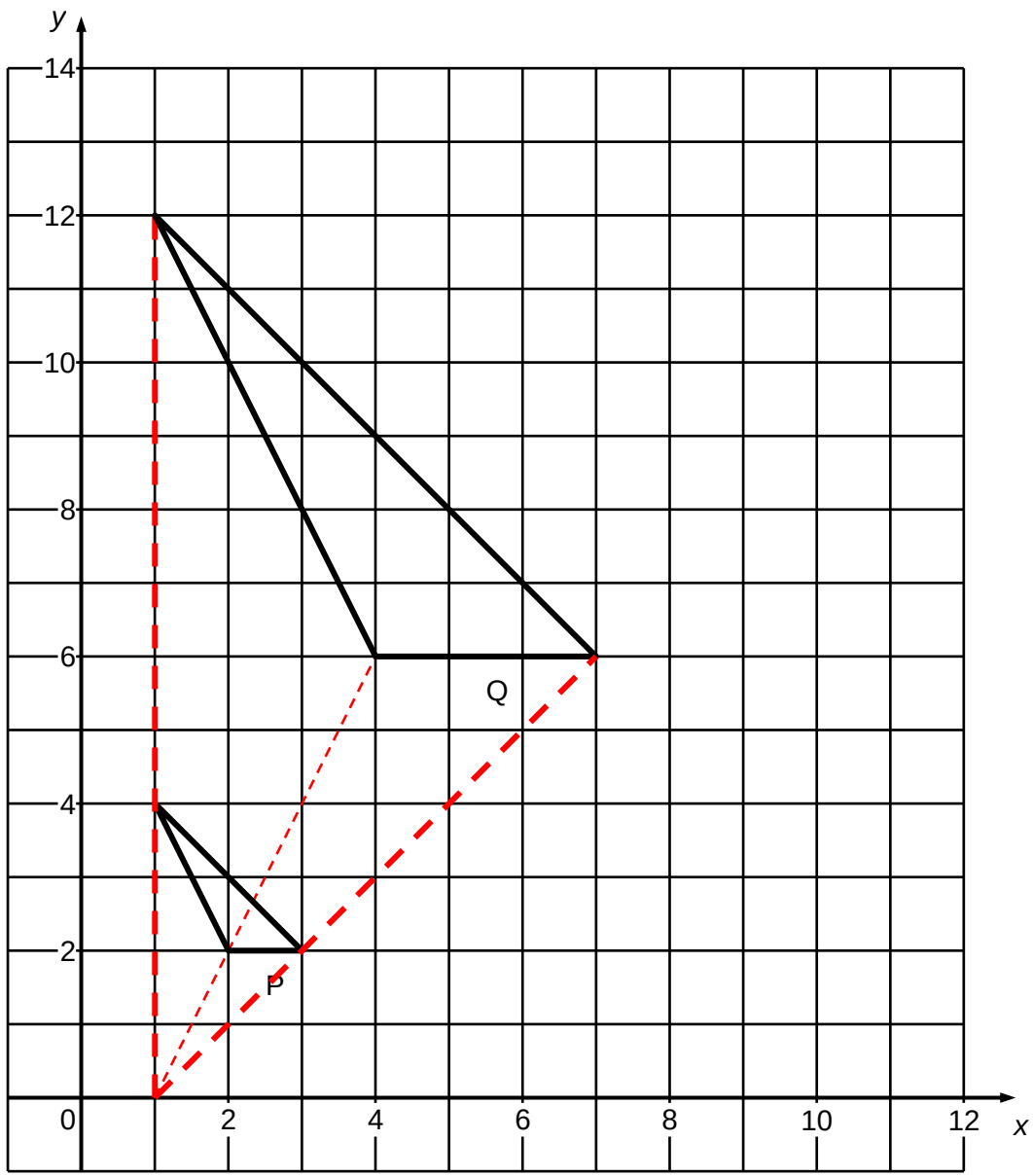
Paper: 1MA0/1H				
Question	**Working**	**Answer**	**Mark**	**Notes**
23 (a)		$\frac{42}{110}$	3	M1 for use of 11 and 10 in the denominators M1 for $\frac{7}{11} \times \frac{6}{10}$ oe A1 for $\frac{42}{110}$ oe **SC for replacement**: B1 for $\frac{7}{11} \times \frac{7}{11}$ $(= \frac{49}{121})$
(b)		$\frac{62}{110}$	3	M1 for correct method for GG $\frac{3}{11} \times \frac{2}{10}$ $(= \frac{6}{110})$ M1 (dep) $1 - (BB + GG)$ $= 1 - (\text{“}\frac{42}{110}\text{”} + \text{“}\frac{6}{110}\text{”})$ A1 for $\frac{62}{110}$ oe OR M1 for at least two of $\frac{7}{11} \times \frac{3}{10}$, $\frac{7}{11} \times \frac{1}{10}$, $\frac{3}{11} \times \frac{1}{10}$ oe M1 for a complete method eg $2 \times (\frac{7}{11} \times \frac{3}{10} + \frac{7}{11} \times \frac{1}{10} + \frac{3}{11} \times \frac{1}{10})$ oe A1 for $\frac{62}{110}$ oe **SC for replacement**: B2 for $2 \times (\frac{7}{11} \times \frac{3}{11} + \frac{7}{11} \times \frac{1}{11} + \frac{3}{11} \times \frac{1}{11})$ oe $(= \frac{62}{121})$ or $(\frac{7}{11} \times \frac{4}{11} + \frac{3}{11} \times \frac{8}{11} + \frac{10}{11} \times \frac{1}{11})$ oe $(= \frac{62}{121})$ or $1 - (\text{“}\frac{49}{121}\text{”} + \frac{9}{121} + \frac{1}{121})$ oe $(= \frac{62}{121})$ (B1 for at least two of $\frac{7}{11} \times \frac{3}{11}$, $\frac{7}{11} \times \frac{1}{11}$, $\frac{3}{11} \times \frac{1}{11}$ oe)

Paper: 1MA0/1H				
Question	**Working**	**Answer**	**Mark**	**Notes**
24 (a)		$3\mathbf{a} + 3\mathbf{b}$	2	M1 for $\vec{AB} = 6\mathbf{b} - 6\mathbf{a}$ oe or $\vec{BA} = 6\mathbf{a} - 6\mathbf{b}$ oe or $(\vec{OM}) = \frac{1}{2}(6\mathbf{a} + 6\mathbf{b})$ oe A1 cao
*(b)	Method 1 Show that $\vec{AG}$ is parallel to $\vec{AN}$	Shown	4	M1 for a method to find $\vec{OG}$ or $\vec{GM}$ in terms of **a** and **b** eg $\vec{OG} = \frac{2}{3}$ "$(3\mathbf{a} + 3\mathbf{b})$" $(= 2\mathbf{a} + 2\mathbf{b})$ eg $\vec{GM} = \frac{1}{3}$ "$(3\mathbf{a} + 3\mathbf{b})$" $(= \mathbf{a} + \mathbf{b})$ M1 for a method to find $\vec{AN}$ in terms of **a** and **b** eg $-6\mathbf{a} + 6\mathbf{b} \div 2$ $(= 3\mathbf{b} - 6\mathbf{a})$ M1 for a method to find $\vec{AG}$ in terms of **a** and **b** eg $-6\mathbf{a} +$ "$2\mathbf{a} + 2\mathbf{b}$" $(= 2\mathbf{b} - 4\mathbf{a})$ C1 for correct simplified expressions in terms of **a** and **b** for $\vec{AG}$ and $\vec{AN}$ followed by conclusion
	Method 2 Show that $\vec{AG}$ is parallel to $\vec{GN}$			OR M1 for a method to find $\vec{OG}$ in terms of **a** and **b** eg $\frac{2}{3}$ "$(3\mathbf{a} + 3\mathbf{b})$" $(= 2\mathbf{a} + 2\mathbf{b})$ M1 for a method to find $\vec{GN}$ in terms of **a** and **b** eg $-$"$(2\mathbf{a} + 2\mathbf{b})$" $+ 6\mathbf{b} \div 2$ $(= \mathbf{b} - 2\mathbf{a})$ M1 for a method to find $\vec{AG}$ in terms of **a** and **b** eg $\frac{1}{2}(6\mathbf{b} - 6\mathbf{a}) - \frac{1}{3}$ "$(3\mathbf{a} + 3\mathbf{b})$" $(= 2\mathbf{b} - 4\mathbf{a})$ C1 for correct simplified expressions in terms of **a** and **b** for $\vec{AG}$ and $\vec{GN}$ followed by conclusion

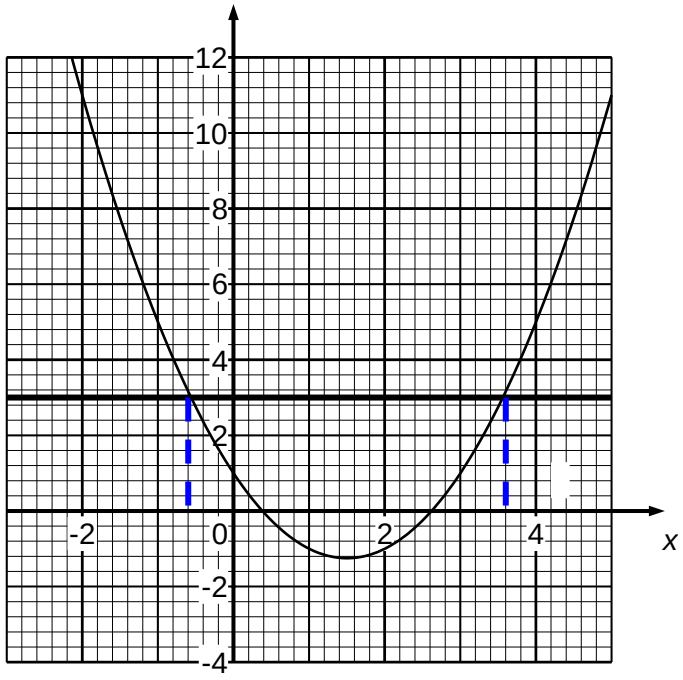
8a



8b



13a



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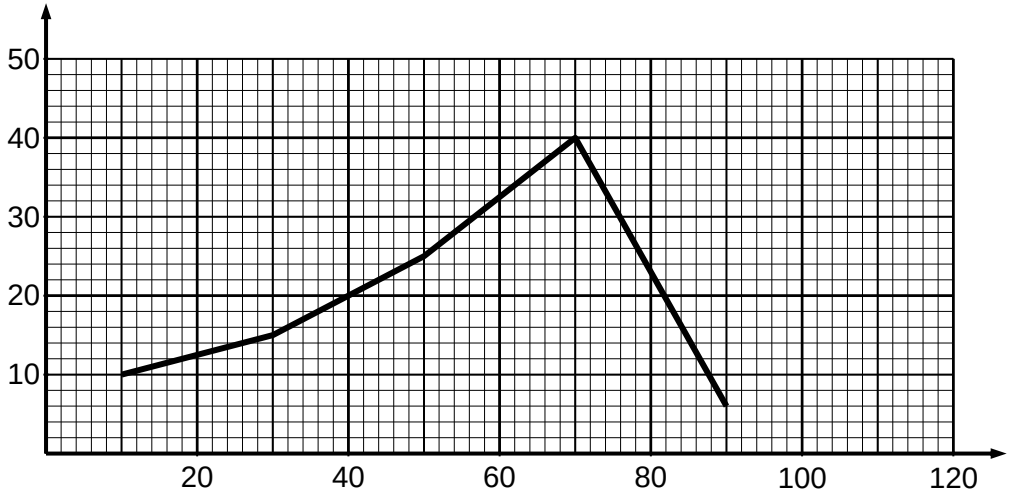

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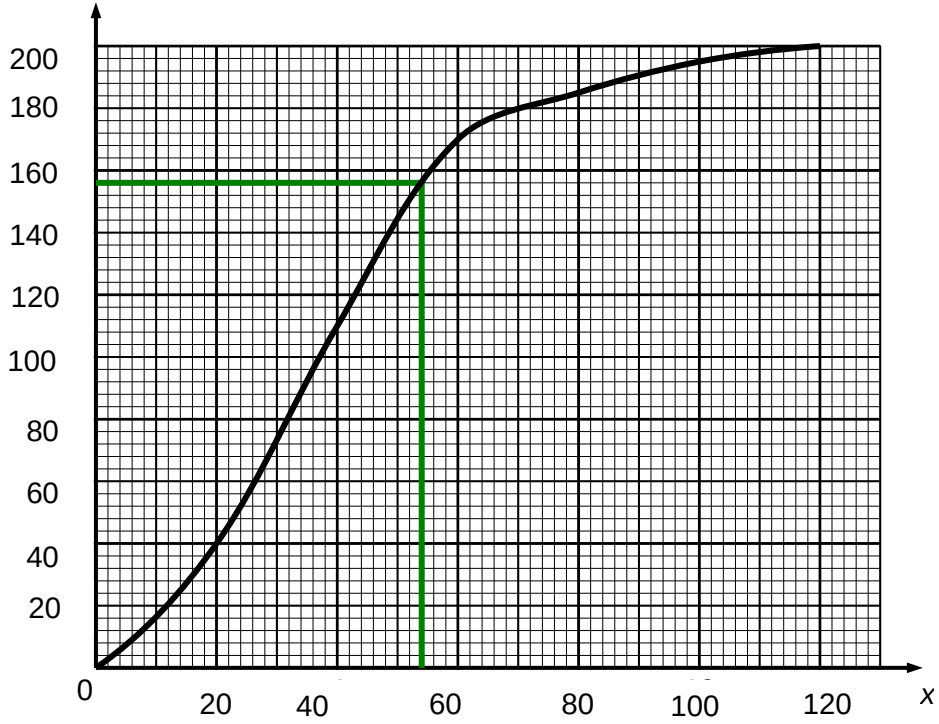
200
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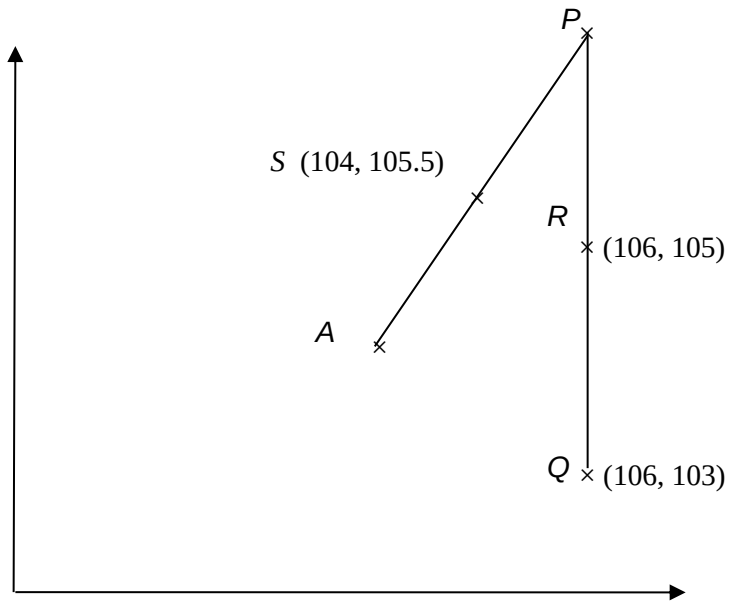
11

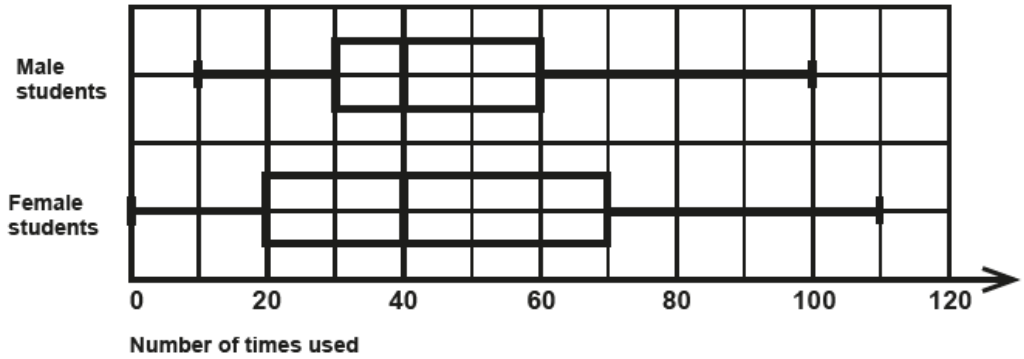

P
S (104, 105.5)
R
(106, 105)
A
Q
(106, 103)

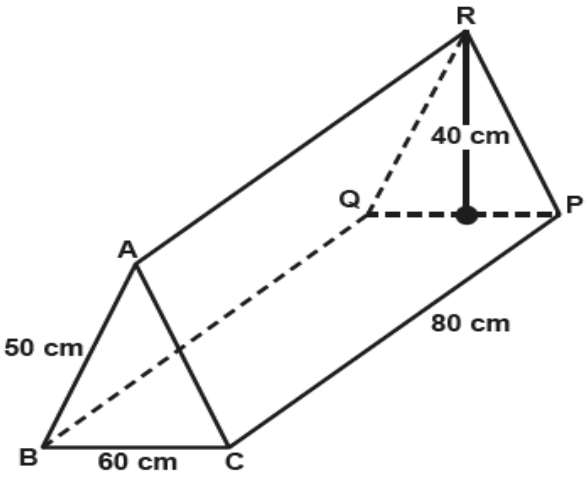
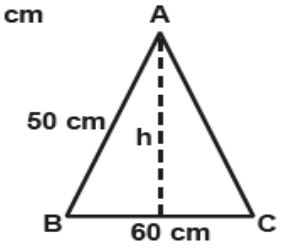
Modifications to the mark scheme for Modified Large Print (MLP) papers.

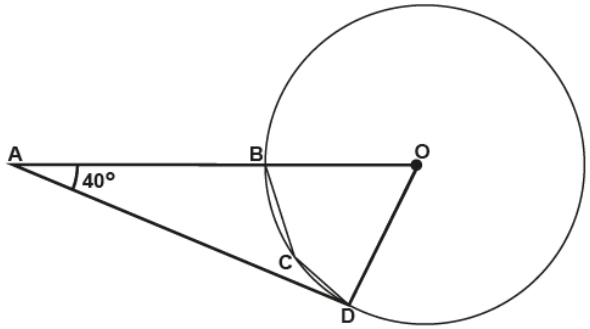
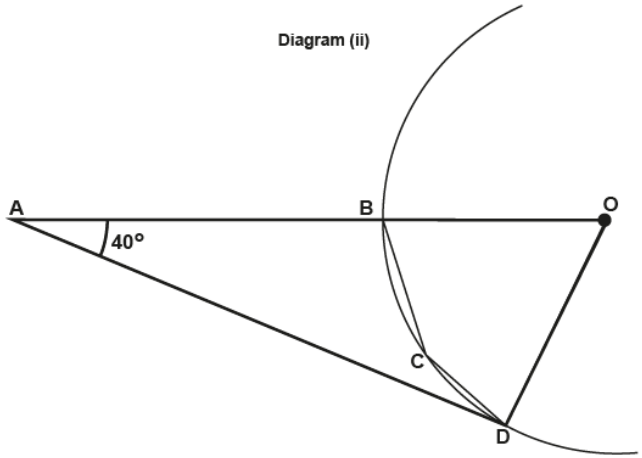
Only mark scheme amendments are shown where the enlargement or modification of the paper requires a change in the mark scheme.

The following tolerances should be accepted on marking MLP papers, unless otherwise stated below:
Angles: ±5º
Measurements of length: ±5 mm

PAPER: 1MA0_1H			
Question		**Modification**	**Mark scheme notes**
1	(a)	MLP only: *x* changed to *e*.	Standard mark scheme but *x* changed to *e* for MLP
3		Number 6 on the frequency column of the table changed to number 5. Diagram enlarged. Right axis has been labelled. Axes labels have been moved to the left of the horizontal axis and above the vertical axis.	Standard mark scheme
4		MLP only: *x* changed to *y*.	Standard mark scheme but *x* changed to *y* for MLP
5		Diagram enlarged. Angle sizes moved outside of the angle arcs; arcs have been made smaller.	Standard mark scheme
7		See below	
8	(a)	Question reversed. Triangle S has been rotated by anticlockwise 90° at the origin and has been labelled triangle T. Question wording changed to 'It shows triangle S and triangle T given on a grid. Describe fully the single transformation that maps triangle S onto triangle T.' 3 answer lines have been provided. Dotty shading has been used.	New mark scheme: B1 for Rotation B1 for 90° anticlockwise about origin [(0,0)]
8	(b)	Diagram enlarged. Shading has changed to dotty shading. Shapes labelled 'triangle Q' and 'triangle P'. Wording added 'It shows triangle Q and triangle P given on a grid.' Question wording 'shape' changed to 'triangle'. *x* axis cut so it finishes at 10. The grid to the left and below the axis is removed.	Standard mark scheme
12		Model provided for all candidates. Diagram enlarged and also provided for MLP. Arrow heads removed and a dot has been added to the centre.	Standard mark scheme
13		In (a) Table has been turned to vertical format and left aligned. Wording added 'There are three spaces to fill.'. In (b) Diagram enlarged.	Standard mark scheme
15		Diagram enlarged. Arrow removed from 6 cm. Arrow and line for 10 cm now a dashed line.	Standard mark scheme

<table>
<tr><th colspan="3">PAPER: 1MA0_1H</th></tr>
<tr><th colspan="2">Question</th><th>Modification</th><th>Mark scheme notes</th></tr>
<tr><td>16</td><td>(a)</td><td>Numbers on the frequency table changed to: 40, 70, 50, 20, 10, 10.</td><td>(a) award B1 for 40, 110, 160, 180, 190, 200
In (b) standard mark scheme (with the above figures) but apply extended tolerance to the plotting of their points.</td></tr>
<tr><td>16</td><td>(c)</td><td>Diagram enlarged. Right axis has been labelled. Axes labels have been moved to the left of the horizontal axis and above the vertical axis.
On larger print versions the horizontal axis is labelled 0, 20, 40, etc. due to lack of space
The number 54 has been changed to 50.</td><td>For (c): M1 indicates using diagram with a mark of 50 eg draws line from 50 to their cumulative frequency graph, or sght of 160 eg 200 − 160
A1 for 40 or ft on a cumulative frequency graph</td></tr>
<tr><td>17</td><td></td><td>MLP only: x changed to y.</td><td>Standard mark scheme with x replaced with y</td></tr>
<tr><td>19</td><td></td><td>Diagram enlarged. Points on the Male box plot moved to: 10, 30, 40, 60, 100. Points on the Female box plot moved to: 0, 20, 40, 70, 110. Horizontal axis label moved to the left of the axis.
 
</td><td>Standard mark scheme for the award of marks, but not the different figures they might use as shown below.
<table><tr><td></td><td>Male</td><td>Female</td></tr><tr><td>Median</td><td>40</td><td>40</td></tr><tr><td>Range</td><td>90</td><td>110</td></tr><tr><td>IQR</td><td>30</td><td>50</td></tr></table></td></tr>
<tr><td>22</td><td></td><td>See below</td><td></td></tr>
<tr><td>24</td><td></td><td>Diagram enlarged. Crosses at G and N changed to a solid dots.</td><td>Standard mark scheme.</td></tr>
</table>

PAPER: 1MA0_1H			
Question		**Modification**	**Mark scheme notes**
7		 Cross section of prism h = height 40 cm 	Diagram changed as shown. Model provided for all candidates. Diagram also enlarged and provided for MLP. Cross section of the prism also provided. Key provided for the cross section of the prism. Braille only: will label the cross section R P Q.	Standard mark scheme

2		Diagram enlarged and labelled ‘Diagram (i)’. Angle size moved outside of the angle arc and the arc has been made smaller. An enlarged part of the diagram has also been provided and labelled ‘Diagram (ii)’. Wording added ‘Diagram (ii) shows an enlarged section of part of the diagram.’ **Question 22** **Diagram (i)**  **Diagram (ii)**  	Standard mark scheme.

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