Mark Scheme (Results)

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General marking guidance

These notes offer general guidance, but the specific notes for examiners appertaining to individual questions take precedence.

1 All candidates must receive the same treatment. Examiners must mark the last candidate in exactly the same way as they mark the first. Where some judgement is required, mark schemes will provide the principles by which marks will be awarded; exemplification/indicative content will not be exhaustive. When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the response should be sent to review.

2 All the marks on the mark scheme are designed to be awarded; mark schemes should be applied positively. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme. If there is a wrong answer (or no 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.

Questions where working is not required: In general, the correct answer should be given full marks.
Questions that specifically require working: In general, candidates who do not show working on this type of question will get no marks – full details will be given in the mark scheme for each individual question.

3 **Crossed out work**
This should be marked **unless** the candidate has replaced it with an alternative response.

4 **Choice of method**
If there is a choice of methods shown, mark the method that leads to the answer given on the answer line.
If no answer appears on the answer line, mark both methods **then award the lower number of marks.**

5 **Incorrect method**
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 for your Team Leader to check.

6 **Follow through marks**
Follow through marks which involve a single stage calculation can be awarded without working as you can check the answer, 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.

7   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 or its context. (eg an incorrectly cancelled fraction when the unsimplified fraction would gain full marks).
It is not appropriate to ignore subsequent work when the additional work essentially makes the answer incorrect (eg. incorrect algebraic simplification).

8   Probability
Probability answers must be given as a fraction, percentage or decimal. 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 fraction is given then cancelled incorrectly, ignore the incorrectly cancelled answer.

9   Linear equations
Unless indicated otherwise in the mark scheme, full marks can be gained if the solution alone is given on the answer line, or otherwise unambiguously identified 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 (embedded answers).

10   Range of answers
Unless otherwise stated, when an answer is given as a range (eg 3.5 – 4.2) then this is inclusive of the end points (eg 3.5, 4.2) and all numbers within the range

11   Number in brackets after a calculation
Where there is a number in brackets after a calculation eg 2 × 6 (=12) then the mark can be awarded **either** for the correct method, implied by the calculation **or** for the correct answer to the calculation.

12   Use of inverted commas
Some numbers in the mark scheme will appear inside inverted commas eg "12" × 50 ; the number in inverted commas cannot be any number – it must come from a correct method or process but the candidate may make an arithmetic error in their working.

13   Word in square brackets
Where a word is used in square brackets eg [area] × 1.5 : the value used for [area] does **not** have to come from a correct method or process but is the value that the candidate believes is the area. If there are any constraints on the value that can be used, details will be given in the mark scheme.
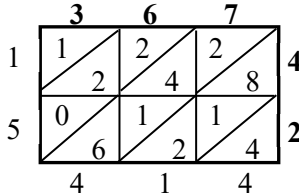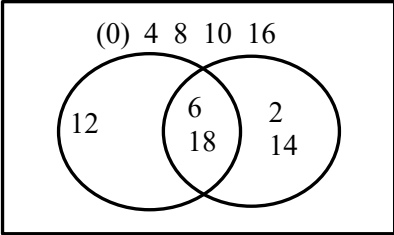
14   Misread
If a candidate misreads a number from the question. eg uses 252 instead of 255; method or process marks may be awarded provided the question has not been simplified. Examiners should send any instance of a suspected misread to review.

Guidance on the use of abbreviations within this mark scheme

M method mark awarded for a correct method or partial method

P process mark awarded for a correct process as part of a problem solving question

A accuracy mark (awarded after a correct method or process; if no method or process is seen then full marks for the question are implied but see individual mark schemes for more details)

C communication mark awarded for a fully correct statement(s)
   with no contradiction or ambiguity

B unconditional accuracy mark (no method needed)

oe or equivalent

cao correct answer only

ft follow through (when appropriate as per mark scheme)

sc special case

dep dependent (on a previous mark)

indep independent

awrt answer which rounds to

isw ignore subsequent working

Question	Answer	Mark	Mark scheme	Additional guidance
1 (a)	15.414	M1	for a complete method with relative place value correct including intention to add all the appropriate elements of the calculation eg 2 lines of the 1st method, internal numbers of grids, or complete structure shown of partitioning methods.	14680 734 15414
		A1	for digits 15414	
		A1	(ft) dep on M1 for correct placement of the decimal point into their final answer	
(b)	37.4	M1	for a start to a method, eg 598.4 ÷ 16 (or 59.84 ÷ 1.6) = 3 (as a first digit)	A start to a repeated subtraction method or build-up method is acceptable if a correct first digit of 3 is found
		A1	for digits 374	
		A1	(ft) dep on M1 for correct placement of the decimal point into their final answer	

Additional guidance for 1(a) tables:

	300	60	7
40	12000	2400	280
2	600	120	14

12000 + 2400 + 280 + 600 + 120 + 14 = 15414

Question	Answer	Mark	Mark scheme	Additional guidance
2	Venn Diagram	C1	for one correct region	(0) 4 8 10 16 12 6 18 2 14 Ignore all entries except the region you are marking for each mark
		C1	for two correct regions	
		C1	for all regions correct	
3	$1\dfrac{8}{15}$	M2	for a complete method, eg $4 - 2 + \dfrac{3}{15} - \dfrac{10}{15}$ condoning error with one numerator **or** for $\dfrac{21}{5} - \dfrac{8}{3} = \dfrac{63}{15} - \dfrac{40}{15} (= \dfrac{23}{15})$ with no more than one error	
		(M1	for finding two fractions with a correct common denominator, with at least one correct corresponding numerator, eg $\dfrac{3}{15}, \dfrac{10}{15}$ **or** for converting both to improper fractions, eg $\dfrac{21}{5}, \dfrac{8}{3}$)	At least one improper fraction must be correct
		A1	$1\dfrac{8}{15}$ oe	Any equivalents must be a mixed number

Paper: 1MA1/1H				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
4	Rahim and correct figures	P1	for start to the process to find 20% for Tamara, eg 220000 × 0.2 oe (= 44000) **or** 30% for Rahim, eg 160000 × 0.3 oe (= 48000) **OR** for 1 – 0.2 (= 0.8) **or** 100 – 20 (= 80) **or** 1 + 0.3 (= 1.3) **or** 100 + 30 (= 130)	Build up processes are acceptable but must be complete and correct
		P1	for a complete process to find at least one new value, eg 220000 – "44000" (= 176 000) or 160000 + "48000" (=208 000) **OR** 220000 × "0.8" (=176 000) **or** 160000 × "1.3" (= 208 000)	
		A1	for one correct value, 176 000 **or** 208 000	
		C1	for correct conclusion supported by correct figures eg Rahim, 176 000 and 208 000	Award 0 marks for a correct answer with no supportive working
5	33	P1	for relating 24 to 8 parts **or** (1 part =) 24 ÷ 8 (= 3) **or** for 15 – 7 (= 8) **or** starts to use a build-up method, eg (8 :) 14 : 30	8 parts = 24
		P1	for 15 – 4 (= 11) **and** 24 ÷ 8 (= 3) **or** 15 × 3 (= 45) **and** 4 × 3 (= 12) **or** for 12 (: 21) : 45	
		A1	cao	

Question	Answer	Mark	Mark scheme	Additional guidance
6	12	P1	for a process to find the area of cross section, eg $750 \div 25 \ (=30)$ oe **or** $\frac{1}{2} \times 5 \times h$ oe	May use any letter for h or may use ?
		P1	for a correct equation in h, eg $750 \div 25 = \frac{1}{2} \times 5 \times h$ oe **or** $\frac{1}{2} \times 5 \times h \times 25 = 750$ oe **or** for a complete process to find h, eg $\frac{750}{25} \times \frac{2}{5}$ oe **or** "30" $\times 2 \div 5$	
		A1	cao SC B1 for answer of 6 if P0 scored	
7	Shown	M1	for a correct expression for the area of one face of the cube, eg x^2 **or** a correct expression for the surface area of the cube, eg $6 \times x^2$	No marks for $x = \sqrt{6\pi}$ without any working.
		M1	for a correct expression for the surface area of the sphere, eg $4 \times \pi \times 3^2 \ (= 36\pi)$	
		M1	for forming a suitable equation, eg $6 \times x^2 = 4 \times \pi \times 3^2$ **or** $6x^2 = "36\pi"$	$6 \times x^2 = 4 \times \pi \times 3^2$ $x^2 = 36\pi \div 6$ $x = \sqrt{6\pi}$
		A1	for completing the method to $x = \sqrt{6\pi}$ or $k = 6$	

Question	Answer	Mark	Mark scheme	Additional guidance
8	8 and –3	M1	for rearranging to get $x^2 - 5x - 24 \,(= 0)$ **or** $-x^2 + 5x + 24 \,(= 0)$	Can be implied by $(x - 8)(x + 3)$ or $(-x + 8)(x + 3)$
		M1	for $(x \pm 8)(x \pm 3)$ **or** $(x + a)(x + b)$ where $ab = -24$ or $a + b = -5$ **or** substitution into formula, condoning one sign error eg $(x =) \dfrac{--5 \pm \sqrt{(-5)^2 - 4 \times 1 \times -24}}{2 \times 1}$	
		A1	for 8 **and** –3	
9 (a)	1	B1	cao	
(b)	3	B1	cao	
(c)	$\dfrac{1}{16}$	B1	oe	
(d)	3	B1	cao	
10 (a)	30	P1	for a start to the process, eg $5406 \div 6 \,(= 901)$ **or** $5400 \div 6 \,(= 900)$ **or** $5000 \div 6 \,(= 833.33..)$ **or** $5410 \div 6 \,(= 901.66..)$	
		P1	for a process to find the length of one side, eg $\sqrt{"901"}$ **or** $\sqrt{"900"}$ **or** $\sqrt{"833.33.."}$ **or** $\sqrt{"901.66.."}$	
		A1	for 30	
(b)	Explanation	C1	for a correct explanation based on their working in (a), eg underestimate because I rounded the total area down	Must be based on the use of a rounded value in a calculation

Question	Answer	Mark	Mark scheme	Additional guidance
11	$\dfrac{30w}{6-21w}$	P1	for forming an equation, eg $6(2w + y) = 7w(3y + 6)$ **or** $12w + 6y = 21wy + 42w$ oe	Condone missing brackets for this mark
		P1	for expanding brackets correctly and gathering w terms or isolating y terms in a correct equation, eg $6y = 21wy + 30w$ **or** $6y - 21wy = 42w - 12w$ **or** $6y - 21wy = 30w$	
		P1	(dep on two terms in y) for factorising out the y, eg $y(6 - 21w) = 42w - 12w$ **or** $y(6 - 21w) = 30w$ **or** $3y(2 - 7w) = 30w$	
		A1	for $(y =)\ \dfrac{30w}{6-21w}$ oe	
12 (a)	cf graph	M1	for 5 or 6 points plotted correctly	If histograms drawn, points must be identified
		A1	for a fully correct graph SC B1 if 5 or 6 of their points plotted not at the end but consistent within each interval and joined by a curve or line segments providing no gradient is negative	Accept a smooth curve or line segments Ignore to the left of the first point and right of the last point
(b)	13 to 14	B1	for answer in the range 13 to 14 or ft their cf graph	ft only from a cf graph

Paper: 1MA1/1H				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
13	Explanation	C1	explanation **Acceptable examples** he should have used $100(x)$ rather than $10(x)$ he should have used $1000x$ and $10x$ Ted's working does not eliminate the recurring decimals the recurring numbers after the decimal point have to be in the same sequence he should have multiplied by 100 to subtract easier after the decimal point he should have multiplied by 100 because two numbers are recurring **Not acceptable examples** it is not correct the method is not complete he should have used $1000x$ he should have multiplied by 100 he should have multiplied by 100 and then done $100x - 10x$ to give 43/90	
14	Shown	M1	for a start to the method, eg finds one correct area $4(x + 1)$ **or** $(x + 7)(2x + 6)$ **or** $(x + 1)(x + 11)$ **or** $(x + 7)(x + 5)$ **or** $4(x + 5)$ **or** $(x + 11)(2x + 6)$	
		M1	for a complete expression for the total area, eg $4(x + 1) + (x + 7)(2x + 6)$ **or** $4x + 4 + 2x^2 + 14x + 6x + 42$ **OR** $(x + 1)(x + 11) + (x + 7)(x + 5)$ **or** $x^2 + x + 11x + 11 + x^2 + 7x + 5x + 35$ **OR** $(x + 11)(2x + 6) - 4(x + 5)$ **or** $2x^2 + 22x + 6x + 66 - 4x - 20$	
		A1	for a complete chain of reasoning with fully correct algebra leading to $2x^2 + 24x + 46$	$2x^2 + 24x + 46$ is given so need to see brackets expanded correctly

Question	Answer	Mark	Mark scheme	Additional guidance
15	$\dfrac{26x+15}{10x}$	M1	for method to write at least one of the fractions with a suitable denominator, eg $\dfrac{4x+3}{2x}\times\dfrac{5}{5}$ $(=\dfrac{20x+15}{10x})$ **or** $\dfrac{3}{5}\times\dfrac{2x}{2x}$ $(=\dfrac{6x}{10x})$	
		M1	for method to combine the fractions, eg $\dfrac{5(4x+3)}{5\times2x}+\dfrac{3\times2x}{5\times2x}$ **or** $\dfrac{5(4x+3)+3\times2x}{5\times2x}$ **or** $\dfrac{20x+15}{10x}+\dfrac{6x}{10x}$	
		A1	for correct algebra leading to $\dfrac{26x+15}{10x}$ oe in form $\dfrac{ax+b}{cx}$	
16	$\dfrac{180}{336}$	P1	for $\dfrac{3}{7}$ or $\dfrac{4}{7}$ or $\dfrac{5}{7}$ as probability for second counter	May be seen in a calculation or on a diagram
		P1	for one correct product eg $\dfrac{3}{8}\times\dfrac{5}{7}\times\dfrac{4}{6}$ $(=\dfrac{60}{336})$ **or** $\dfrac{5}{8}\times\dfrac{3}{7}\times\dfrac{4}{6}$ $(=\dfrac{60}{336})$ **or** $\dfrac{5}{8}\times\dfrac{4}{7}\times\dfrac{3}{6}$ $(=\dfrac{60}{336})$	
		P1	for a complete process eg $\dfrac{3}{8}\times\dfrac{5}{7}\times\dfrac{4}{6}+\dfrac{5}{8}\times\dfrac{3}{7}\times\dfrac{4}{6}+\dfrac{5}{8}\times\dfrac{4}{7}\times\dfrac{3}{6}$	
		A1	oe, eg $\dfrac{15}{28}$ SC B1 for answer of $\dfrac{225}{512}$ (replacement)	Accept equivalent fractions, decimals (0.53... or 0.54) or percentages (53% or 54%)

Question	Answer	Mark	Mark scheme	Additional guidance
17	Region shaded	M1	for two of the lines $2y + 4 = x$, $x = 3$, $y = 6 - 3x$ correctly drawn	Accept full or broken lines for all marks
		M1	for all three correct lines correctly drawn	
		A1	for a fully correct region indicated with all lines correct	Award for clear intention, shading not needed
				Diagram at end of mark scheme
18	17.6	P1	for correct trig statement, eg $\sin 30 = \dfrac{h}{6}$	
		P1	for complete process to find h, eg $6 \times \dfrac{1}{2}$ $(= 3)$	
		P1	for correct substitution into the area of a trapezium formula, eg $\dfrac{1}{2}(a + b) \times "3" = 66$ **or** $a + b = 44$ **or** $\dfrac{1}{2}(2x + 3x) \times h = 66$	
		P1	for complete correct process to find the length of AB, eg $\left[\dfrac{66 \times 2}{3} \div (2 + "3") \right] \times 2$	
		A1	cao	An answer of $\dfrac{88}{5}$ gets P4 A0

Question	Answer	Mark	Mark scheme	Additional guidance
19	Result shown	M1	(indep) for writing $\sqrt{12}$ as $2\sqrt{3}$	This mark can be awarded whenever this is seen, which might be later in the process.
		M1	for method to rationalise the denominator eg $\dfrac{8+\sqrt{12}}{5+\sqrt{3}}\times\dfrac{5-\sqrt{3}}{5-\sqrt{3}}$ **or** $\dfrac{8+2\sqrt{3}}{5+\sqrt{3}}\times\dfrac{5-\sqrt{3}}{5-\sqrt{3}}$ oe	
		M1	(dep on previous M1) for expanding terms, condone one error in numerator or denominator eg $\dfrac{40-8\sqrt{3}+5\sqrt{12}-\sqrt{12}\sqrt{3}}{25-5\sqrt{3}+5\sqrt{3}-\sqrt{3}\sqrt{3}}$ **or** $\dfrac{40-8\sqrt{3}+10\sqrt{3}-2\sqrt{3}\sqrt{3}}{25-5\sqrt{3}+5\sqrt{3}-\sqrt{3}\sqrt{3}}$ **or** $\dfrac{34+2\sqrt{3}}{22}$ oe	
		A1	for a complete chain of reasoning leading to $\dfrac{17+\sqrt{3}}{11}$	
20	$x = 2.1, y = 5.1$ $x = -2.9, y = -4.7$	M1	for drawing the graph of $y - 2x = 1$	
		A1	for one correct pair of values **or** for both correct x values, **or** for both correct y values	For both A marks accept answers in the ranges $x = 2.0$ to 2.2, $y = 5.0$ to 5.2 $x = -2.8$ to -3.0, $y = -4.6$ to -4.8
		A1	for both correct pairs, correctly matched	Accept values given as coordinates

Question	Answer	Mark	Mark scheme	Additional guidance
21 (a)	$\dfrac{1}{4}$	M1	for $f(1) = 3 \times 1^2 + 1 \ (= 4)$ **and** a clear intention to find g("4") **or** for $\dfrac{4}{\left(3 \times 1^2 + 1\right)^2}$ **or** for stating gf(x), eg $\dfrac{4}{\left(3x^2 + 1\right)^2}$ oe	
		A1	oe	
(b)	$\sqrt[4]{\dfrac{48}{x-1}}$	M1	for finding fg(x), eg $3 \times \left(\dfrac{4}{x^2}\right)^2 + 1$ **or** $\dfrac{48}{x^4} + 1$	
		M1	for start of method to find the inverse of fg(x), eg $y - 1 = 3 \times \left(\dfrac{4}{x^2}\right)^2$ **or** $y - 1 = \dfrac{48}{x^4}$ **or** $x - 1 = \dfrac{48}{y^4}$ **or** $x - 1 = 3 \times \left(\dfrac{4}{y^2}\right)^2$	
		M1	for $y^4 = \dfrac{48}{x-1}$ **or** $x^4 = \dfrac{48}{y-1}$ **or** for a final answer of $\sqrt[4]{\dfrac{48}{y-1}}$	
		A1	oe	
22	(3, 36)	P1	for factorising –3 from the expression, eg $-3(x^2 - 6x - 3)$ **or** $-3(x^2 - 6x) + 9$	
		P1	for starting the process to complete the square, eg $(x - 3)^2 - 9$	ft from their factorising if only one error
		P1	for completing the process of completing the square, eg $-3[(x - 3)^2 - 12]$ **or** $-3(x - 3)^2 + 36$	
		A1	cao	An answer only and no working is 0 marks

Question 17
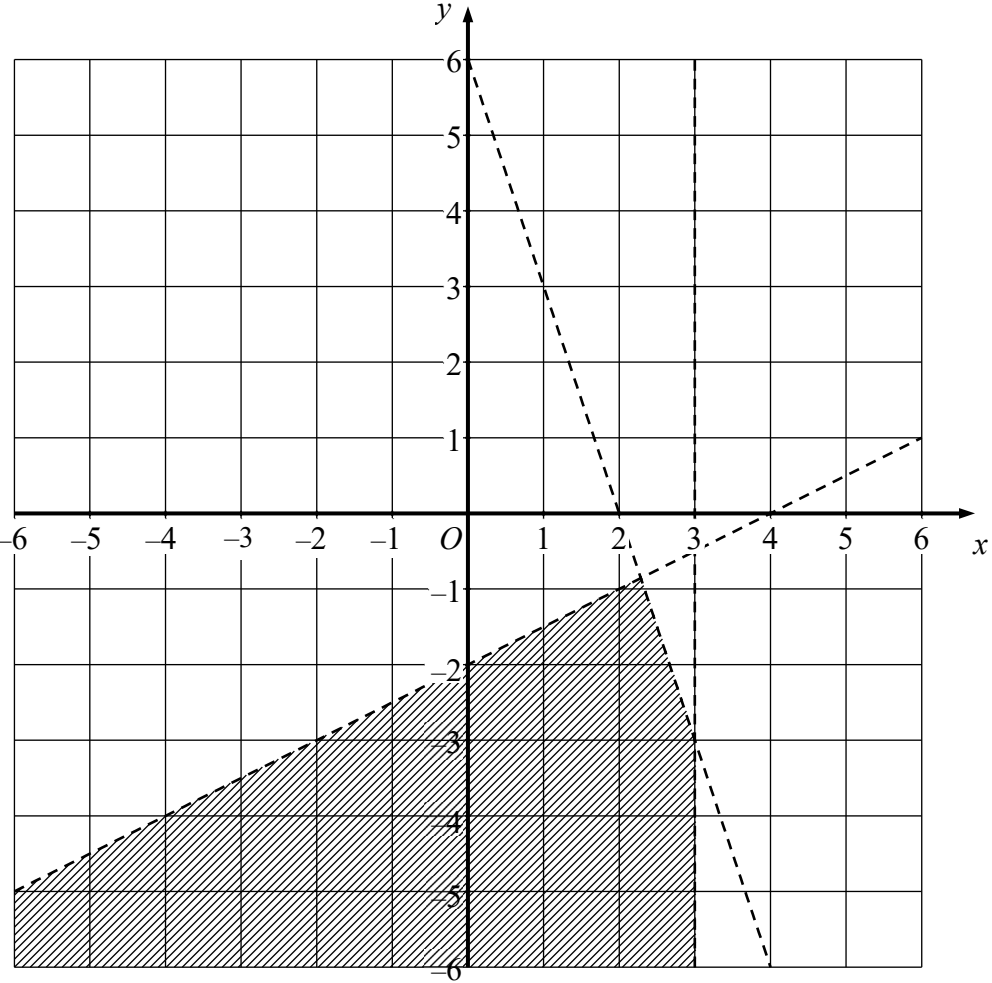
Modifications to the mark scheme for Modified Large Print (MLP) papers: 1MA1 1H

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: 1MA1_1H		
Question	**Modification**	**Mark scheme notes**
2	Wording added 'Look at the diagram for Question 2 in the Diagram Booklet. It shows an incomplete Venn diagram.' Wording added 'in the Diagram Booklet…'. Diagram enlarged. Labels 'Set *A*' and 'Set *B*' moved above the circles. Braille: In the diagram, add (i) for universal set, (ii) for Set *A*, (iii) for the overlap & (iv) for Set **B**. Then add 'Ans: (i) __ (ii) __ (iii) __ (iv) __'	Standard mark scheme
5	Wording added 'Look at the information for Question 5 in the Diagram Booklet.' Information enlarged.	Standard mark scheme

PAPER: 1MA1_1H		
Question	Modification	Mark scheme notes
6	Wording 'Look at Diagram 1 and Diagram 2 for Question 6 in the Diagram Booklet. You may be provided with a model.' The triangle labelled *ABC*. Diagram 1 to show the 3D prism. Diagram 2 to show the cross-section *ABC*. Wording added 'Diagram 1 and the model show a prism'. Wording added 'The cross section of the prism shown in Diagram 2 is a right-angled triangle labelled *ABC*.' Wording added 'Angle *ABC* is a right angle. The base of the triangle, *BC* = 5 cm.' Diagram enlarged. Right angle made more obvious. Dashed lines made longer and thicker. Model could be provided candidates.	Standard mark scheme
7	Model of the cube and sphere provided for all candidates. Wording added 'Look at Diagram 1, Diagram 2 and the formula for Question 7 in the Diagram Booklet. You may be provided with two models.' Wording 'The diagram shows…' removed and replaced with 'Diagram 1 and Model A show a cube with edges of length *x* cm.' Wording added 'Diagram 2 and Model B show a sphere of radius 3 cm.' Diagrams enlarged and stacked vertically. Dashed lines made longer and thicker. The '3 cm' label and arrow moved to the left on the sphere diagram. Formula moved above the surface area diagram. Open headed arrows.	Standard mark scheme
8	Change *x* to *y*.	Standard mark scheme but note the changes to the letters.
10	Wording added 'Look at the diagram for Question 10 in the Diagram Booklet.' Wording 'The diagram shows…' removed and replaced with 'It shows…' Diagram enlarged.	Standard mark scheme

PAPER: 1MA1_1H		
Question	**Modification**	**Mark scheme notes**
11	Wording added 'Look at the diagram for Question 11 in the Diagram Booklet.' Wording 'The diagram shows…' removed and replaced with 'It shows…' Diagrams enlarged. Labels moved to the left and above the diagrams. The rectangles labelled as 'rectangle **A**' and 'rectangle **B**'. Diagrams stacked vertically. Braille: Additional words: 'Rectangle **A** has a length of $2w + y$ and a width of 6. Rectangle **B** has a length of $3y + 6$ and a width of $7w$'	Standard mark scheme
12	Wording added 'Look at the diagram for Question 12 in the Diagram Booklet. It shows a grid.' Wording added 'The cumulative frequency table below gives…' Table enlarged. Cumulative frequency values modified: 4 changed to 5, 11 changed to 10, 24 changed to 25, 34 changed to 35 Wording added 'On the grid in the Diagram Booklet,..' Diagram enlarged. Open headed arrows. Axes labels moved to the left of the horizontal axis and above the vertical axis. Right axis has been labelled. Small squares removed. Braille: a spare diagram, 14 round bumpons and Wikki Stix.	Standard mark scheme but in (b) allow an answer in the range 12.6 to 14.5 (ft)
14	Wording added 'Look at the diagram for Question 14 in the Diagram Booklet. It shows the shape *ABCDEF*. All the measurements are in centimetres.' With the shape labelled *ABCDEF*. Wording added: '$AB = x + 1$, $BC = 4$, $EF = 2x + 6$, $AF = x + 11$' All the marked angles are right angles.' Wording 'Here is…' removed. Diagram enlarged. Right angles made more obvious.	Standard mark scheme
15	*x* changed to *y*.	Standard mark scheme but note the changes to the letters.

PAPER: 1MA1_1H		
Question	**Modification**	**Mark scheme notes**
17	Wording added 'Look at the diagram for Question 17 in the Diagram Booklet. It shows a grid.' Diagram enlarged. Open headed arrows. The grid cut at $x = -4$. Axes labels moved to the right of the horizontal axis and above the vertical axis.	Standard mark scheme
18	Wording added 'Look at the diagram for Question 18 in the Diagram Booklet.' Wording 'Here is…' removed and replaced with 'It shows…' Wording added: '*AB* is parallel to *DC*. *BC* = 6 cm Angle *BCD* = 30°' Angle moved outside of the angle arc and the arc made smaller. Diagram enlarged.	Standard mark scheme
20	Wording added 'Look at the diagram for Question 20 in the Diagram Booklet.' Wording 'The diagram shows…' removed and replaced with 'It shows…' Diagram enlarged. Open headed arrows. Small squares removed. Axes labels moved to the right of the horizontal axis and above the vertical axis.	Standard mark scheme but for both A marks accept answers in the ranges $x = 2.0$ to 2.25, $y = 5.0$ to 5.25 $x = -2.5$ to –3.0, $y = -4.6$ to –4.9