



Mark Scheme (Results)

Summer 2026

Pearson Edexcel GCSE
In Mathematics (1MA1)
Higher (Calculator) Paper 2H

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body.

We provide a wide range of qualifications including academic, vocational, occupational and

specific programmes for employers. For further information visit our qualification websites

at www.edexcel.com or www.btec.co.uk.

Alternatively, you can get in touch with us using the details on our contact us page www.edexcel.com/contactus

Pearson: helping people progress, everywhere

Pearson aspires to be the world's leading learning company. Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at:

www.pearson.com/uk

Summer 2026

Question Paper Log Number

Publication Code 1MA1_2H_2606_MS

All the material in this publication is copyright

© Pearson Education Ltd

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 $2 \times 6 (= 12)$, 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” $\times 50$; 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] $\times 1.5$, 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

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
1 (a)	204	M1	for at least 3 multiples of both 12 and 34 (can include 12 and 34 may not be consecutive)	12: 12, 24, 36, 48, 60, 72, 84 96, ... 34: 34, 68, 102, 136, 170 ... For the list not containing 204, accept the first 3 correct multiples
			or for the prime factors 2, 2, 3 and 2, 17 (could be shown in a factor tree with no more than one arithmetic error or Venn diagram or table)	$12 = 2 \times 2 \times 3$ $34 = 2 \times 17$
			or identifies the factors 2, 6 and 17 only (may be seen in a grid)	If a list of factors is given, 2, 6 and 17 only must be unambiguously identified.
			or for a different common multiple, 408, 612	Condone the inclusion of 1s for this mark
(b)	14	A1	for 204 or $2 \times 2 \times 3 \times 17$ oe	
		M1	for a complete factor tree for 98 or 140 with no more than one arithmetic error	Condone the inclusion of 1s for this mark
			or for listing at least 4 correct factors of 98 or 140 (with no more than 1 incorrect in either list), could be in factor pairs	Factors of 98: 1, 2, 7, 14, 49, 98 Factors of 140: 1, 2, 4, 5, 7, 10, 14, 20, 28, 35, 70, 140
			or for the prime factors of 98 (2, 7, 7) or 140 (2, 2, 5, 7)	Prime factors may be seen in a diagram, eg a Venn diagram
		A1	for 14 or 2×7	2, 7 is not enough, it must be a product

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
2 (a)	$x^2 - 2x - 63$	M1	for 3 out of no more than 4 terms correct with correct signs or 4 correct terms ignoring signs	$x^2 - 9x + 7x - 63$ NB: $x^2 - 2x$ and $-2x - 63$ are indicative of 3 correct terms
		A1	cao	
		M1	for a correct first step to isolate x term or constant term on one side, eg subtracts $3x$ from both sides to get $20 + 3x - 3x = 7x - 12 - 3x$ or $20 = 4x - 12$	For M marks step must be carried out not just intention shown. For example, if you see $20 + 3x = 7x - 12$ $-3x \qquad \qquad -3x$ award M1 for $20 = kx - 12$ where $k < 7$
		M1	or subtracts $7x$ from both sides to get $20 + 3x - 7x = 7x - 12 - 7x$ or $20 - 4x = -12$ or adds 12 to both sides to get $20 + 3x + 12 = 7x - 12 + 12$ or $32 + 3x = 7x$ or subtracts 20 from both sides to get $20 + 3x - 20 = 7x - 12 - 20$ or $3x = 7x - 32$ or for $k = 4x$ or $32 = kx$ or $-4x = k$ or $kx = -32$	or indicating $-7x$ and reaching $20 + kx = -12$ where $k < 3$ or indicating $+12$ and reaching $k + 3x = 7x$ where $k > 20$ or indicating -20 and reaching $3x = 7x + k$ where $k < -12$
(b)	8	M1	for correct steps to isolate terms in x on one side and constant terms on the other side, eg $20 + 12 = "4x" - 12 + 12$, or $"32" + 3x - 3x = 7x - 3x$ or $"32" = "4x"$	
		A1	oe	
3	15	M1	for a correct first step to find the exterior angle, eg $180 - 156 (= 24)$ or setting up a correct equation using the interior angle formula, eg $\frac{(n-2) \times 180}{n} = 156$ oe	M1A0 for an embedded answer in correct working, eg $2340 \div 15 = 156$
		A1	cao	

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
4	No supported	P1 P1 P1 P1 C1	for process to work with ratio, eg $180 \div (7 + 5) (= 15)$ OR for process to begin to work with weights, eg $7 \times 65 (= 455)$ or $5 \times 145 (= 725)$ for full process to work with ratio to find number of small bags or large bags eg $7 \times "15" (= 105)$ or $5 \times "15" (= 75)$ OR for process to work with both weights, eg $7 \times 65 (= 455)$ and $5 \times 145 (= 725)$ for process to work with ratio and weight, eg $"105" \times 65 (= 6825)$ or $"75" \times 145 (= 10875)$ or $[\text{small bags}] \times 65$ or $[\text{large bags}] \times 145$ OR for process to work with total weight for one batch of bags, eg $"455" + "725" (= 1180)$ for full process to find figures to compare, eg $"6825" + "10875" (= 17700)$ or $"1180" \times "15" (= 17700)$ or $17 \times 1000 \div "1180" (= 14.406...)$ and $180 \div (7 + 5) (= 15)$ or $17 \times 1000 \div 180 (= 94.4...)$ and $1180 \div 12 (= 98.3...)$ or $"1180" \div 12 \times 180 (= 17700)$ for No supported by accurate comparable figures, eg 17.7 (kg) or 700 grams over or Serena is wrong and 17700 (and 17000) OR No and 14.4(06...) and 15 OR No and 94.4... and 98.3... SCB4 for a supported answer of 20100 or 20.1	Condone the use of inconsistent or incorrectly converted units for all P marks, eg 7×0.65 or 5×1.45 or $68.25 + 108.25 = 177$ [small bags] and [large bags] are what they clearly think is the number of small or large bags not 5 or 7 Accurate figures with no supportive working scores 0 Allow 17600 or better for 17700 from using rounded or truncated figures Units not required but if seen must be correct
5 (a)	4.5×10^{-6}	B1	cao	

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
(b)	96	P1	for process to find number of orbits in 30 days, eg $(2.016 \times 10^7) \div (4.48 \times 10^4)$ (=450) or for process to find distance travelled each day, eg $(2.016 \times 10^7) \div 30$ (= 672000) or for process to work with time in 30 days, eg $30 \times 24 \times 60$ (= 43200) or process to find distance travelled in one hour, eg $(2.016 \times 10^7) \div (30 \times 24)$ (=28000)	Condone the use of incorrect conversion from standard form to ordinary numbers for the first 2 marks provided digits 2016 and 448 with zeros only Embedded process in an incorrect calculation will score P1P0P0A0, eg $(2.016 \times 10^7) \div (4.48 \times 10^4) \times 30 \times 24 \times 60$
		P1	for process to find the number of orbits per day, eg "450" $\div 30$ (= 15) or "672000" $\div (4.48 \times 10^4)$ (= 15) or process to find the number of days per orbit, eg $30 \div \text{"450"} \left(= \frac{1}{15} \right)$ or for process to work with time and orbits in 30 days, eg $(2.016 \times 10^7) \div (4.48 \times 10^4)$ (=450) and $30 \times 24 \times 60$ (= 43200) or process to find number of hours per orbit, eg $4.48 \times 10^4 \div \text{"28000"}$ (= 1.6) or for process to find distance travelled each minute, eg "672000" $\div 24 \div 60$ (= 466.66...) or for process to find time needed for remaining distance, eg $\frac{4.48 \times 10^4 - \text{"28000"}}{\text{"28000"}} \times 60$ (= 36)	
		P1	for full process to find number of minutes per orbit, eg $24 \div \text{"15"} \times 60$ or "43200" $\div \text{"450"}$ or $60 \times 24 \times \frac{1}{15}$ or "1.6" $\times 60$ or $60 + \text{"36"}$ or $(4.48 \times 10^4) \div \text{"466.66..."}$	
		A1	for 96	
				Accept an answer in the range 95.9 to 96.1 coming from correct working

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
6	7179.95	P1	for process to work with interest for the first year, eg 3800×0.042 (= 159.6) oe or 3800×1.042 (= 3959.6) oe	May be implied by 478.8 or 4278.8 or 11878.8 or 3640.4
		P1	for process to use compound interest, eg " 3959.6×0.042 (= 166.30...) or " 3959.6×1.042 (= 4125.90...) or 3800×1.042^3 (= 4299.19...) oe	Award P2 for 3800×1.042^n where $n > 1$ May be implied by 6799.19... or by 4539.94... $3800 \left(1 + \frac{4.2}{100}\right)^n$ where $n > 1$ unevaluated will score P1P0
		P1	for full process to find total amount at the end of year 4, eg (" $4299.19... + 2500$) $\times 1.056$	
		A1	for answer in the range 7179 to 7180	

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
7	Explanation	C1	for explanation identifying error in method, Acceptable examples she needed to divide 5 by 2 / she should have halved 5 she should have used 2.5 she should have done $70 - 2.5$ / she should have done $70 + 2.5$ (it should be) $70 - 2.5 \leq h < 70 + 2.5$ she did (the interval for rounding 70) to the nearest 10 (not nearest 5) she added and subtracted 5 instead of rounding to the nearest 5 cm the difference between the upper and lower bounds should be 5 not 10 unless she is doing this to the nearest 10 this is wrong she needs to find the midpoint between 65 to 70 / 70 to 75 Not acceptable examples she is correct she added and subtracted 5 you don't add and subtract 5 the error interval should be 2.5 not 5 (it should be) $67.5 \leq h < 72.5$ / the correct interval is 67.5 to 72.5 she isn't rounding to the nearest 5 the (inequality) signs are wrong the numbers are wrong	May be supported by a diagram but must be correct and must not contradict Condone $<$ in place of $\leq$ and $\leq$ in place of $<$

Paper: 1MA1/2H																
Question	Answer	Mark	Mark scheme	Additional guidance												
8	Shown	M1 M1 C1	for finding expression for total weight of apples or oranges, eg $36x$ or $27y$ or starts to work with ratio, eg $36 + 27 = 63$ and $36 : 27 : 63$ for full method to find expression for total weight, eg $36x + 27y$ or continues work with ratio, eg $4 : 3 : 7$ and $4x + 3y$ for showing $\frac{36x + 27y}{36 + 27} = \frac{4x + 3y}{7}$ or continues ratio work to correct answer, eg $4 : 3 : 7$ and $4x + 3y$ and $\frac{4x + 3y}{7}$	Condone use of other variable for M marks only May be implied by $\frac{36x + 27y}{36 + 27}$												
9 (a)	Box plot	B3 (B2 (B1	for fully correct box plot for box plot showing a box and whiskers and at least 3 correctly plotted values from 0.5, 1.3, 2.1, 2.9, 3.6) for at least 3 of Min, LQ, Med, UQ or Max stated or indicated unambiguously)	Box can be of any height. Accept ends that are marked (eg line, cross, dot) or defined by the end of the whiskers if clear Min = 0.5, LQ = 1.3, Med = 2.1, UQ = 2.9, Max = 3.6												
(b)	Comparisons	C1 C1	ft for a correct comparison of medians, eg the median for children is less than the median for adults or adults generally spend more time walking each week as the median is higher ft for a comparison of a measure of spread, eg the interquartile range/range of children is greater so children are less consistent than adults or adults are more consistent as the IQR/range is lower or as the range is almost the same they have similar consistency Comparisons for this mark can relate to the IQR or range	Simply quoting values for median and range or IQR is insufficient, they must be compared <table><tr><td></td><td>Median</td><td>Range</td><td>IQR</td></tr><tr><td>Child</td><td>2.1</td><td>3.1</td><td>1.6</td></tr><tr><td>Adult</td><td>2.4</td><td>3</td><td>1.2</td></tr></table> Figures need not be stated but if they are they must be correct or ft from (a) For 2 marks, at least one comparison must be in context (eg explains what median or spread represents in this context)		Median	Range	IQR	Child	2.1	3.1	1.6	Adult	2.4	3	1.2
	Median	Range	IQR													
Child	2.1	3.1	1.6													
Adult	2.4	3	1.2													

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
13	225	P1	for $\frac{4}{50} (= 0.08)$ or $\frac{18}{4} (= 4.5)$ or $\frac{50}{4} (= 12.5)$ or $\frac{4}{18} (= 0.22...)$ or $\frac{50-4}{50}$	Decimal values truncated or rounded must have 2 dp or more if process not seen If 225 is found isw subsequent rounding eg to 200
		P1	for eg, $\frac{4}{50} = \frac{18}{n}$ or $\frac{4}{18} = \frac{50}{n}$ or $\frac{18 \times 50}{4}$ or $\frac{50-4}{50} = \frac{n-18}{n}$	
		A1	cao	
14	0.797 and -1.46	M1	for rearranging to get $6x^2 + 4x - 7 (= 0)$ or $-6x^2 - 4x + 7 (= 0)$	
		M1	ft providing a 3 term quadratic for substitution into formula, condoning one sign error, eg $\frac{-4 \pm \sqrt{4^2 - 4 \times 6 \times (-7)}}{2 \times 6}$ or $\frac{-4 \pm \sqrt{184}}{12}$ or ft providing a 3 term quadratic for completing the square and solving, eg $\pm \sqrt{\frac{23}{18}} - \frac{1}{3}$ or one correct answer	
		A1	for answers in the range 0.797 to 0.8 and -1.46 to -1.5	

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
15 (a)	−3 to −4	M1	for drawing a tangent at $A = 2.5$	No tangent drawn at $A = 2.5$ scores zero marks
		M1	for a complete method to find the gradient eg tangent at $A = 2.5$ and " $-15 \div 4$ " or answer in the range 3 to 4	Use of change in y over change in x Working may be seen on the diagram
		A1	for answer in the range −3 to −4 dependent on tangent drawn	Accept answers in the form $\frac{a}{b}$ where a and b are integers
	(b) Explanation	C1	ft for a suitable explanation, eg the rate of change in the value or the rate of depreciation or rate of decrease of value or how fast the value falls	there must be an answer stated in (a) to apply ft

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
16	33.2	P1	for process to form an equation, eg $\frac{72}{360} \times 2\pi r = \frac{13\pi}{10} \quad \text{or} \quad 0.2 \times 2\pi r = 1.3\pi$ $\text{or} \quad \frac{72}{360} \times \pi d = \frac{13\pi}{10} \quad \text{or} \quad 0.2\pi d = 1.3\pi$ or a complete method to find the circumference, eg $\frac{13\pi}{10} \times 5 (= 20.4\dots)$	
		P1	for process to find radius or diameter from a correct equation, eg $(r =) \frac{1.3\pi}{0.2 \times 2\pi} (= 3.25) \quad \text{or} \quad (r =) "20.4\dots" \div 2\pi (= 3.25) \quad \text{or}$ $(d =) \frac{1.3\pi}{0.2\pi} (= 6.5) \quad \text{or} \quad (d =) "20.4\dots" \div \pi (= 6.5)$	
		P1	for full process to find the area of the circle, eg $\pi \times "3.25" \times "3.25"$	Condone embedded in calculation for area of the sector, eg $\pi \times "3.25" \times "3.25" \times \frac{72}{360} (= 6.63\dots)$
		A1	for answer in the range 33.1 to 33.2 oe	Accept $\frac{169}{16}\pi$
17	Sketch	B2	for a fully correct sketch including points (1, 2), (−2, −6), (4, −6)	see end of mark scheme
		(B1	for a correct sketch of $-f(x)$ or $f(x-3)$ including the turning point and the end points or 4 out of 5 points correct using the overlay)	$-f(x)$ implied by graph in the correct orientation with a turning point with coordinates (x, y) and end points at (x−3, y−8) and (x+3, y−8) $f(x-3)$ implied by the graph with a turning point with coordinates (1, y) and end points at (−2, y+8) and (4, y+8)

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
18	Shown	M1 M1 C1	for a starting method to use a common denominator, eg one correct numerator for their choice of correct common denominator eg $\frac{1 \times 3}{4x \times 3} \left(= \frac{3}{12x} \right)$ or $\frac{5 \times 4}{3x \times 4} \left(= \frac{20}{12x} \right)$ or $\frac{2 \times 12x}{1 \times 12x} \left(= \frac{24x}{12x} \right)$ for complete method to use a common denominator, eg three correct numerators for their choice of correct common denominator eg $\frac{1 \times 3}{4x \times 3} \left(= \frac{3}{12x} \right)$ and $\frac{5 \times 4}{3x \times 4} \left(= \frac{20}{12x} \right)$ and $\frac{2 \times 12x}{1 \times 12x} \left(= \frac{24x}{12x} \right)$ for a complete chain of reasoning leading to $\frac{24x-17}{12x}$ oe	$-\frac{17}{12x}$ implies M1

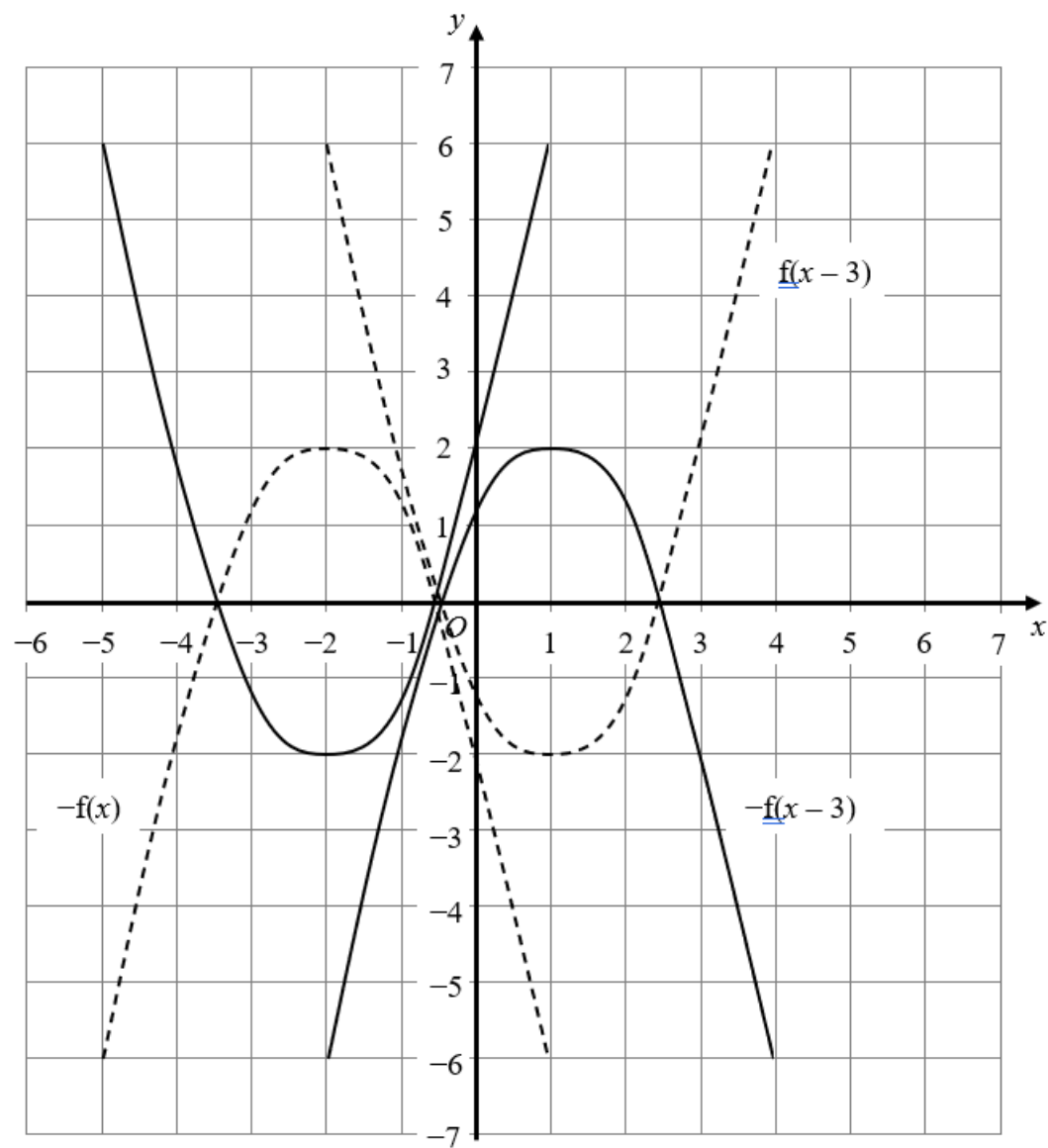
Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
19	$\frac{4}{3}$	P1	for process to find $\vec{AP}$, eg $\vec{AP} \left(= \frac{1}{4} \vec{AB} \right) = \frac{1}{4}(\mathbf{b} - \mathbf{a})$ or to find $\vec{BP}$, eg $\vec{BP} \left(= \frac{1}{4} \vec{BA} \right) = \frac{3}{4}(\mathbf{a} - \mathbf{b})$	All expressions must be in terms of $\mathbf{a}$ and $\mathbf{b}$ to gain credit All vectors must be correctly assigned to gain credit Accept reverse vectors for all P marks Award of this mark implies the previous mark
		P1	for process to find $\vec{CP}$, eg $\vec{CP} \left(= \vec{CA} + \vec{AP} \right) = \mathbf{a} + \frac{1}{4}(\mathbf{b} - \mathbf{a}) = \frac{3}{4}\mathbf{a} + \frac{1}{4}\mathbf{b}$ or $\vec{CP} \left(= \vec{CB} + \vec{BP} \right) = \mathbf{b} + \frac{3}{4}(\mathbf{a} - \mathbf{b}) = \frac{3}{4}\mathbf{a} + \frac{1}{4}\mathbf{b}$	
		P1	for process to find $\vec{BT}$, eg $\vec{BT} \left(= \vec{BA} + \vec{AT} \right) = \mathbf{a} - \mathbf{b} + m\mathbf{b} = \mathbf{a} + (m - 1)\mathbf{b}$ or $\vec{BT} \left(= k \vec{CP} \right) = k \left(\frac{3}{4}\mathbf{a} + \frac{1}{4}\mathbf{b} \right)$ or for a process to find a second vector for $\vec{AT}$, eg $\vec{AT} \left(= \vec{AB} + k \vec{CP} \right) = (\mathbf{b} - \mathbf{a}) + k \left(\frac{3}{4}\mathbf{a} + \frac{1}{4}\mathbf{b} \right)$ or for process to find $\vec{CT}$, eg $\vec{CT} \left(= \vec{CA} + \vec{AT} \right) = \mathbf{a} + m\mathbf{b}$ or $\vec{CT} \left(= \vec{CB} + k \vec{CP} \right) = \mathbf{b} + k \left(\frac{3}{4}\mathbf{a} + \frac{1}{4}\mathbf{b} \right)$	Condone use of any letter for k, but not m

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
		P1	for forming a suitable equation in terms of a, <i>m</i>, <i>k</i> and b, or equates coefficients to form two equations in terms of <i>m</i> and <i>k</i> → eg using <i>BT</i> "a + (<i>m</i> - 1)b" = $k\left(\frac{3}{4}\mathbf{a} + \frac{1}{4}\mathbf{b}\right)$ or $1 = \frac{3}{4}k$ and $m - 1 = \frac{1}{4}k$ → or using <i>AT</i> (b - a) + $k\left(\frac{3}{4}\mathbf{a} + \frac{1}{4}\mathbf{b}\right) = m\mathbf{b}$ or $\frac{3}{4}k - 1 = 0$ and $1 + \frac{1}{4}k = m$ → or using <i>CT</i> a + <i>m</i>b = b + $k\left(\frac{3}{4}\mathbf{a} + \frac{1}{4}\mathbf{b}\right)$ or $1 = \frac{3}{4}k$ and $m = 1 + \frac{1}{4}k$	may be seen as $3(m - 1) = 1$
		A1	(dep on P3) for $\frac{4}{3}$ oe	

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
20 (a)	27	M1	for $f(-1) = (7 - 8 \times (-1)) \div 3 (=5)$ and a clear intention to find $g("5")$ or for $\left(2\left(\frac{7 - 8 \times (-1)}{3}\right) - 7\right)^3$ or for stating $(gf(x) =)\left(2\left(\frac{7 - 8x}{3}\right) - 7\right)^3$ oe	Condone use of y in place of x
		A1	cao	
(b)	8	M1	for a correct method to find $g^{-1}(x)$, eg $\frac{\sqrt[3]{x} + 7}{2}$ or correct substitution, eg $(2x - 7)^3 = 729$	
		M1	(dep) for a correct method to substitute, eg $\frac{\sqrt[3]{729} + 7}{2}$ or a correct method to find x , eg $(x =)\frac{(\sqrt[3]{729} + 7)}{2}$	
		A1	cao	

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
21	41.4	P1	for process to find length AC , eg $AC^2 = 6^2 + 6^2$ or $AC = 8.4(85\dots)$ or $AC = \sqrt{72}$ or $AC = 6\sqrt{2}$	First two marks can be awarded in either order Correct lengths may be seen on the diagram If using an alternative method award at the point of $AE =$ or $CE =$
		P1	for process to find AE or CE , eg $6 \div \sin(30) (=12)$	
		P1	for starting a process to find angle AEC , eg $"8.485\dots"'^2 = "12"'^2 + "12"'^2 - 2 \times "12" \times "12" \times \cos AEC$ oe or $\sin(AEC \div 2) = \frac{\frac{8.485\dots}{2}}{12}$	
		P1	for correct order of operations leading to, eg $\cos AEC = \frac{"12"'^2 + "12"'^2 - "8.485\dots"'^2}{2 \times "12" \times "12"} (=0.75)$ oe or $AEC = 2 \times \left(\sin^{-1} \frac{\frac{8.485\dots}{2}}{12} \right)$	
		A1	for answer in range 40.9 to 41.5	

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance
22	Shown	M1	for method to find area of base of cuboid, eg $(168 - 42\sqrt{x}) = 14 \times \text{Area}$ or $(168 - 42\sqrt{x}) \div 14 (= 12 - 3\sqrt{x})$	Method to rationalise must be correct for their expression if expression is not correct
		M1	for method to rationalise the denominator ft their expression for area providing in the form $\frac{a}{b \pm c\sqrt{x}}$, eg $\frac{36}{12 - 3\sqrt{x}} \times \frac{12 + 3\sqrt{x}}{12 + 3\sqrt{x}}$ or $\frac{12}{4 - \sqrt{x}} \times \frac{4 + \sqrt{x}}{4 + \sqrt{x}}$ or $\frac{36 \times 14}{168 - 42\sqrt{x}} \times \frac{168 + 42\sqrt{x}}{168 + 42\sqrt{x}}$	
		M1	ft for showing a full method to expand and reduce to the form $\frac{a + b\sqrt{x}}{c - dx}$, eg $\frac{432 + 108\sqrt{x}}{144 - 9x}$ or $\frac{84672 + 21168\sqrt{x}}{28224 - 1764x}$	
		C1	for fully accurate working leading to required result of $\frac{48 + 12\sqrt{x}}{16 - x}$	



Modifications to the mark scheme for Modified Large Print (MLP) papers: 1MA1 2H

Only mark scheme amendments are shown where the enlargement or modification of the paper requires a change in the mark scheme. Notes apply to both MLP papers and Braille papers unless otherwise stated.

The following tolerances should be accepted on marking MLP papers, unless otherwise stated below:

Angles: $\pm 5^\circ$

Measurements of length: ± 5 mm

PAPER: 1MA1/2H			
Question		Modification	Mark scheme notes
2	(a)	Letter changed: 'x' to 'y'.	Standard mark scheme but note change of letter
9	(a)	Wording added: 'Look at the diagram for Question 9(a) in the Diagram Booklet. It shows a grid.' Wording added: 'below' Diagram enlarged. Base line added. Values changed: 05 to 04, 13 to 12, 21 to 22, 28 to 27, 29 to 28 Wording changed: 'Draw a box plot on the grid in the Diagram Booklet to represent the information in the stem and leaf diagram.' Braille: Wording added 'Bumpons are provided if you wish to use them.'	Standard mark scheme but note change of values Min = 0.4, LQ = 1.2, Med = 2.2, UQ = 2.8, (Max = 3.6)
	(b)	Wording added: 'Look at the diagram for Question 9(b) in the Diagram Booklet. It is a box plot showing ...' Diagram enlarged.	
15		Wording added: 'Look at the diagram for Question 15 in the Diagram Booklet. It is a graph showing...' Diagram enlarged. Open headed arrows. Braille: 1.5 cm squares and grid cropped at value = 30 and age = 6 Wording added 'Bumpons and drawing film are provided if you wish to use them.'	Standard mark scheme but leeway needed
16		Wording added/changed: 'Look at the diagram for Question 16 in the Diagram Booklet. It shows a sector OPQ of a circle with centre O' Wording added: 'Angle POQ = 72°' Diagram enlarged. Angle moved outside of angle arc and angle arc made smaller.	Standard mark scheme

17		Wording added: ‘Look at the diagram for Question 17 in the Diagram Booklet. It shows a grid.’ Diagram enlarged. Open headed arrows. Wording added: ‘in the Diagram Booklet.’ Braille: parts of curve above $(-4, 2)$ and $(0, 2)$ removed. Grid cropped at $x = 4$, $y = 5$ and $y = -5$ Wording added ‘Bumpons and drawing film are provided if you wish to use them.’	MLP: Standard mark scheme Braille: B2 for fully correct sketch including points $(1, 2)$, $(-1, -2)$, $(3, -2)$
18		Braille: Letters changed, ‘a’ to ‘p’, ‘b’ to ‘q’, ‘c’ to ‘r’	Standard mark scheme but note change of letters
19		Wording added: ‘Look at the diagram for Question 19 in the Diagram Booklet. It shows ...’ Diagram enlarged.	Standard mark scheme
21		Wording changed: ‘Look at Diagram 1-5 for Question 21 in the Diagram Booklet. There may be a model available for this question, if ordered. Diagram 1 and the model show a 3D view of cuboid ABCDEFGH. Diagram 2 shows a front view of the cuboid. Diagram 3 shows a top view of the cuboid. Diagram 4 shows a left side view of the cuboid. Diagram 5 shows a rear view of the cuboid. $AB = 6\text{ cm}$ $BC = 6\text{ cm}$ Diagram enlarged. 2D views added. Model provided.	Standard mark scheme
22		Braille: Letters changed, ‘a’ to ‘p’, ‘b’ to ‘q’, ‘c’ to ‘r’	Standard mark scheme but note change of letters

