



# Mark Scheme (Results)

Summer 2023

Pearson Edexcel GCSE  
In Mathematics (1MA1)  
Foundation (Calculator) Paper 2F

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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  $2 \times 6 (=12)$  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" × 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

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
1	6200	B1	for 6200 (accept in words)	
2	$\frac{7}{10}$	B1	or any equivalent fraction	
3	900	B1	cao	
4	$12t$	B1	for $12t$	
5	100	B1	cao	
6 (a)	Cross marked at 0	B1		Allow if intention is clear
(b)	Cross marked at $\frac{1}{2}$	B1		Allow if intention is clear
7 (a)	9.3	B1	accept answer in the range 9.1 to 9.5	
(b)	106	B1	accept answer in the range 104 to 108	
(c)	isosceles	B1	for isosceles	Condone incorrect spelling provided intention is clear
8	96	P1	for process to find total distance before or after using scale, eg $8 + 16 (= 24)$ <b>or “32” + “64” oe</b>	Condone incorrect use of scale if addition seen.
		P1	for process to use scale, eg $8 \times 4 (= 32)$ or $16 \times 4 (= 64)$ or [PR] $\times 4$	where [PR] is 12 or 13 or is clearly stated
		A1	cao	

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
9 (a)	28	B1	cao	
9 (b)	4 : 9	M1 A1	for 8 : 18 or for any ratio equivalent to 4 : 9 <b>or</b> 9 : 4 or 2.25 : 1  for 4 : 9	Accept 4 : 9 in the form 1 : n, eg 1 : 2.25
10 (a)	6	B1	cao	
(b)	14 00	M1 M1 A1	for use of graph to find the maximum time paid for, eg £9.00 = 6 hours  for intention to add times, eg 08 00 + “6” hrs  for 14 00 or 2 pm	May be seen on graph  8, 9, 10, 11, 12, 1 is enough to show a clear intention to add For method marks condone use of incorrect time notation  Correct time notation required
11	Shown	M1 M1 A1	for at least three of $40 \times 1 (= 40)$ , $50 \times 2 (= 100)$ , $60 \times 4 (= 240)$ , $70 \times 5 (= 350)$ , $80 \times 3 (= 240)$ , $90 \times 1 (= 90)$ oe  (dep M1) for a complete method to find comparable figures (allow up to 2 errors in their products), eg $40 \times 1 + 50 \times 2 + 60 \times 4 + 70 \times 5 + 80 \times 3 + 90 \times 1$ oe or for $1200 - 40 \times 1 - 50 \times 2 - 60 \times 4 - 70 \times 5 - 80 \times 3 - 90 \times 1$ oe  for accurate comparable figures, eg 1060 or 140	Intention to multiply is enough for award of M1 May be seen as repeated addition  Condone incorrect difference if 1060 is clearly seen

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
12 (a)	Line drawn	B1	for correct line shown on diagram, provided unambiguous	
12 (b)	Explanation	C1	<p>for explanation, eg he has reflected in the <math>y</math>-axis (not the <math>x</math>-axis)</p> <p><b>Acceptable examples</b></p> <p>Alex didn't reflect in/on the <math>x</math>-axis      She/he drew it on the <math>y</math>-axis or he didn't draw it on the <math>x</math>-axis      It should be in the bottom right box      Used a mirror on the <math>y</math>-axis (not <math>x</math>-axis)      It needs to be reflected down not across      Vertical (reflection) instead of horizontal (reflection)      Drawn in the correct position on grid <b>and</b> statement "it should be here"</p> <p><b>Not acceptable examples</b></p> <p>the reflection is facing the wrong way      It's in the wrong box or it should be on the bottom      She/he has flipped it wrong      It needs to go down not across      She/he (should have) used a mirror      There is no label or label in the wrong place      Alex reflected the shape</p>	
13	800	M1	for method to work with fraction and 50, eg $16 \times 50$ <b>or</b> $50 \div \frac{1}{16}$ <b>or</b> $16 \times 50 + 50$ oe or $16 \times 50 - 50$ oe	$\frac{1}{16} = 0.0625$
		A1	cao	750 or 850 without working scores no marks

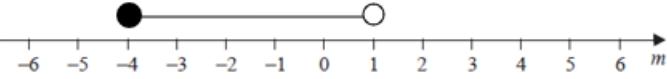
Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
14	864	B1	(indep) for process to convert to common units, eg $72 \times 10 (= 720)$ or $48 \times 10 (= 480)$ or $24 \times 10 (= 240)$ or $80 \div 10 (= 8)$ or $60 \div 10 (= 6)$ or $20 \div 10 (= 2)$ or <b>or</b> “96000” $\div 10^3 (= 96)$ or “82944” $\times 10^3 (= 82944000)$ <b>or</b> “0.864” $\times 10^3$	This mark can be awarded at any stage One correct conversion for their method is enough for the award of this mark

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
15	Spinner (supported)	P1  P1  C1	<p>for a process to express one relationship,            eg <math>\frac{2}{6}</math> oe or <math>\frac{3}{8}</math> oe  <b>or</b> 2 : 4 oe or 3 : 5 oe or 2 : 6 oe or 3 : 8 oe</p> <p>for process to express both relationships,            eg <math>\frac{2}{6}</math> oe and <math>\frac{3}{8}</math> oe  <b>or</b> 2 : 4 oe and 3 : 5 oe or 2 : 6 oe and 3 : 8 oe</p> <p>for indicating (number greater than 5 on) spinner supported by correct values,            eg <math>\frac{8}{24}</math> and <math>\frac{9}{24}</math> <b>or</b> 0.33(3..) and 0.37(5)  <b>or</b> 33(.3..)% and 37(.5)%  <b>or</b> 10 : 20 and 12 : 20 or 16 : 48 and 18 : 48</p>	Allow use of words to describe relationship, eg 2 out of 6  Conclusion may be indicated in body of question eg circling spinner or phrase
16	98	M1  M1  A1	<p>for method to use speed, distance and time,            eg <math>56 \times [\text{time}]</math> or <math>56 \times 105 (= 5880)</math>  <b>or</b> <math>56 \div 4 \times 3 (= 42)</math>  <b>or</b> <math>56 \div 60 (= 0.933\dots)</math>  <b>OR</b> for method to convert decimal time,            eg <math>(60 + 45) \div 60 (= 1.75)</math> or <math>45 \div 60 (= 0.75)</math></p> <p>for a complete method using decimal time,            eg <math>56 \times "1.75"</math>  <b>or</b> "<math>5880 \div 60</math>"  <b>or</b> "<math>0.933\dots \times 105</math>"  <b>or</b> <math>56 + "42"</math> or <math>56 + "28" + "14"</math></p> <p>for 97.65 to 98.3</p>	For this mark accept [time] written unconventionally eg as 1.45, 145, 175, 75

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
17	540	P1 P1 P1 A1	<p>for start of process, eg <math>350 + 250 (= 600)</math> <b>or</b> <math>3 \times 380 (= 1140)</math>  <b>or</b> <math>380 - 350 (= 30)</math> or <math>380 - 250 (= 130)</math></p> <p>for process to work with mean and number of seats in at least one cinema, eg <math>350 + 250 (= 600)</math> <b>and</b> <math>3 \times 380 (= 1140)</math>  <b>or</b> “1140” – 350 (= 790) or “1140” – 250 (= 890)  <b>or</b> for an equation in <math>x</math>, eg <math>350 + 250 + x = 3 \times 380</math>  <b>or</b> <math>380 - 350 (= 30)</math> and <math>380 - 250 (= 130)</math></p> <p>for process to find number of seats in cinema C,  eg “1140” – “600” or for <math>(x =)</math> “1140” – 350 – 250  <math>380 + “30” + “130”</math></p> <p>cao</p>	<p><math>350 + 250 +</math> another number scores no marks eg <math>350 + 250 + 150</math> or <math>350 + 250 + 380</math></p>
18 (a)	45	P1 P1 A1	<p>for a valid start to the process, eg <math>180 \div 12 (= 15)</math> or <math>3(0.00) \div 12 (= 0.25)</math></p> <p>for complete process, eg “15” <math>\times</math> 3(0.00) or <math>180 \times “0.25”</math></p> <p>for 45(0.00)</p>	Calculations can be in £ or p or a combination for both process marks

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
18 (b)	9	P1  P1  A1	<p>for a valid start to the process, eg cost of each can,            eg <math>7(0.00) \div 24 (= 0.2916\dots)</math> or <math>700 \div 24 (= 29.16\dots)</math></p> <p><b>or</b> total volume of 24 cans, eg <math>330 \times 24 (= 7920)</math></p> <p><b>or</b> proportion of ml, eg <math>330 \div 100 (= 3.3)</math></p> <p>for complete process,            eg <math>\frac{100}{330} \times "0.2916\dots" (= 0.08838\dots)</math> or <math>\frac{100}{330} \times "29.16\dots" (= 8.838\dots)</math></p> <p><b>or</b> <math>\frac{100}{"7920"} \times 7(0.00) (= 0.08838\dots)</math> or <math>7(0.00) \div 24 \div \frac{330}{100} (= 0.08838\dots)</math></p> <p>or <math>7(0.00) \div \frac{"7920"}{100} (= 0.08838\dots)</math></p> <p>for 9</p>	Calculations can be in £ or p  Accept £0.09(p)
19 (a)  (b)	150 90	45 105 65 25 M1 A1	B3 (B2) (B1) for a fully correct frequency tree for at least 4 figures correctly placed) for at least 1 figure correctly placed) for eg $\frac{45}{150}$ oe or $45 \div 150 (= 0.3)$ <b>or</b> for $\frac{[\text{number of car owners who own a bicycle}]}{[\text{total number of people who own a car}]}$ ft diagram oe for 30 <b>or</b> ft diagram	If probabilities used instead of frequencies award a maximum of B2  Must be values from their diagram with numerator < denominator

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
20 (a)	1.765(2...)	M1	for fully evaluating the numerator or denominator, eg 18.3... or 10.4(1) <b>or</b> answer of 1.76 or 1.77 <b>or</b> digits 1765(2...)	Answer must be given to at least 3 decimal places rounded or truncated. Check first 4 significant figures only.
		A1	for 1.765(2.....)	
(b)	1.6	B1	for 1.6 oe	
21	$2 \times 2 \times 3 \times 5$	M1	for a complete method to find prime factors, could be shown on a complete factor tree, with no more than one error or by division by prime factors with no more than one error  <b>or</b> for 2, 2, 3, 5 (1)	Condone the inclusion of 1 for the method mark
		A1	for $2 \times 2 \times 3 \times 5$ oe	Accept $2^2 \times 3 \times 5$
22	No with reason	C1	for No and valid reason, eg compares $\frac{1}{3}$ with $\frac{1}{2}$ or 16 (with 24) <b>Acceptable examples</b> No, $\frac{1}{3}$ are red not $\frac{1}{2}$ There are 16 red counters (not 24) No as she has used the ratio 1:1 (not 1:2) Incorrect as it is 16 : 32 No as she should divide by 3 (as $1 + 2 = 3$ ) No as they would both be 24 so it doesn't fit in the ratio 1 : 2 No because $24 + 48 = 72$  <b>Not acceptable examples</b> Yes, ... No as the number of red counters would be lower There is 1 red for every 2 blue	

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
23 (a)	4	B1	cao	
(b)	correct diagram	C2	for a fully correct diagram, eg 	
(c)	$g < 25$	M1	<p>for drawing a line from <math>-4</math> to <math>1</math>  <b>or</b> (indep) for an open circle at <math>1</math>  <b>or</b> (indep) for a closed circle at <math>-4</math>)</p> <p>for a correct first step,  eg adding <math>4</math> to both sides, eg <math>\frac{2}{5}g &lt; 6 + 4</math>  or multiplying throughout by <math>5</math>, eg <math>2g - 4 \times 5 &lt; 6 \times 5</math>  <b>or</b> dividing throughout by <math>2</math>, eg <math>\frac{1}{5}g - 4 \div 2 &lt; 6 \div 2</math></p> <p>for a correct second step, eg <math>2g &lt; "10" \times 5</math> or <math>\frac{1}{5}g &lt; "10" \div 2</math>  <b>or</b> <math>2g &lt; "30" + "20"</math> or <math>g - "20" \div 2 &lt; "30" \div 2</math>  <b>or</b> <math>\frac{g}{5} &lt; "3" + "2"</math> or <math>g - "2" \times 5 &lt; "3" \times 5</math>  <b>or</b> showing <math>25</math> as the critical value</p> <p>for <math>g &lt; 25</math> oe</p>	Condone arrow heads or line ending to denote the ‘end’ of the line Allow use of any inequality or as an equation for both method marks $\frac{2}{5}g < 10$ $2g - 20 < 30$ $\frac{g}{5} - 2 < 3$ $2g < 50$ $\frac{g}{5} < 5$ $g - 10 < 15$ Can be written as $g = 25$

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
24	1.25	P1	for finding an expression for the area of one shape, eg $\frac{1}{2} \times 8 \times 6x (= 24x)$ or $5(4x - 1) (= 20x - 5)$ oe	Condone missing brackets for area of rectangle for all process marks
		P1	for finding an expression for the area of both shapes, eg $\frac{1}{2} \times 8 \times 6x$ <b>and</b> $5(4x - 1)$ oe <b>or</b> [area of triangle] – 10 or [area of rectangle] + 10 oe or [area of triangle] – [area of rectangle]	
		P1	for writing a correct equation, eg $\frac{1}{2} \times 8 \times 6x = 5(4x - 1) + 10$ oe <b>or</b> (dep on 1st P1) eg [area of triangle] – 10 = [area of rectangle] or [area of triangle] = [area of rectangle] + 10 or [area of triangle] – [area of rectangle] = 10	
		A1	for 1.25 oe	

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
25	168	P1	for a start to the process, eg $\frac{57}{100} \times 800 (= 456)$ or $57 \div (12 + 7) (= 3)$ or $800 \div (12 + 7) (= 42.1\dots)$ or [amount] $\times \frac{57}{100}$ or [amount] $\times \frac{7}{12+7}$	May be seen as part of other calculations, eg $\frac{7}{12+7} \times 57 (= 21)$ or $\frac{7}{12+7} \times 800 (= 294.7\dots)$  [amount] can be any figure considered as being 57% of 800 or 43% calculated incorrectly or a figure calculated from using full or partial ratio incorrectly as a first step
		P1	for a complete process to find the weight of glass, eg $\frac{57}{100} \times 800 \times \frac{7}{12+7}$ oe	
		A1	for an answer in the range 167.9 to 168  SCB2 for an answer of 288	
26	12.65, 12.75	B1	for 12.65 in correct position	Accept 12.749 or 12.7499(...)
		B1	for 12.75 in correct position	

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
27	Rachel supported	P1  P1  P1  C1	<p>for process to begin to work with percentage for year 1 for Tamsin or Rachel,            eg <math>150000 \times 0.04 (= 6000)</math> oe or <math>150000 \times 1.04 (= 156000)</math> oe  <b>or</b> <math>160000 \times 0.015 (= 2400)</math> oe or <math>160000 \times 1.015 (= 162400)</math> oe</p> <p>for process to use compound interest for Tamsin or Rachel,            eg “156000” <math>\times 0.04 (= 6240)</math> oe or “156000” <math>\times 1.04 (= 162240)</math> oe  <b>or</b> “162400” <math>\times 0.015 (= 2436)</math> oe or “162400” <math>\times 1.015 (= 164836)</math> oe  <b>or</b> <math>1.04^2 (= 1.0816)</math> or <math>1.015^2 (= 1.030225)</math></p> <p><b>OR</b></p> <p>for process to begin to work with percentage increase for Tamsin <b>and</b> Rachel for one year,            eg <math>150000 \times 1.04 (= 156000)</math> oe <b>and</b> <math>160000 \times 1.015 (= 162400)</math> oe</p> <p>for full process to find figures to compare,            eg Tamsin for 2 years <b>and</b> Rachel for 2 years            eg <math>150000 \times 1.04^2 (= 162240)</math> oe <b>and</b> <math>160000 \times 1.015^2 (= 164836)</math> oe</p> <p><b>OR</b></p> <p>Tamsin for 2 years <b>and</b> Rachel for 1 year,            eg <math>150000 \times 1.04^2 (= 162240)</math> oe <b>and</b> <math>160000 \times 1.015 (= 162400)</math> oe</p> <p>for Rachel with supporting figures,            eg 162240 <b>and</b> 164836  <b>or</b> 162240 <b>and</b> 162400  <b>or</b> other valid conclusion with supporting comparable figures</p>	<p>May be implied by 12000 or 4800 or 162000 or 164800</p> <p>values may be rounded or truncated to 3 sf</p> <p>May be implied by 162000 <b>and</b> 164800</p> <p>Other comparisons are possible</p> <p>Note that the figure used to compare for Rachel can be the figure after 2 years or after 1 year</p>
28	B, D, E, C, A	B3  (B2)  (B1)	<p>for all correctly matched</p> <p>for 3 or 4 correctly matched)</p> <p>for 2 correctly matched)</p>	

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

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:  $\pm 5$  mm

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<b>PAPER: 1MA1_2F</b>			
<b>Question</b>		<b>Modification</b>	<b>Mark scheme notes</b>
6	(a)	Wording added ‘Look at the diagram for Question 6(a) in the Diagram Booklet. It shows a probability scale.’ Wording removed ‘with a cross (x)’ Numbers moved to above the scale.	
6	(b)	Wording added ‘Look at the diagram for Question 6(b) in the Diagram Booklet. It shows a probability scale.’ Wording removed ‘with a cross (x)’ Numbers moved to above the scale.	
7	(a) (b)	Wording added ‘Look at the diagram for Question 7(a) and 7(b) in the Diagram Booklet. It shows’. Wording removed ‘Here is’ Wording added ‘ABC.’ Triangle enlarged such that AC is exactly 15cm, angle B is exactly $100^\circ$ and BC is 10cm.	
7	(c)	Wording added ‘Look at the diagram for Question 7(c) in the Diagram Booklet. It shows’ Wording removed ‘Here is’ Wording added ‘PQR.’ Diagram enlarged.	
8		Wording added ‘Look at the diagram for Question 8 in the Diagram Booklet. It’ Wording removed ‘The diagram’ Diagram enlarged. Arrows removed. Vertical lines added at P, Q, and R. Wording added ‘PQ represents 8 cm. QR represents 16 cm’ Braille: Wording added “The diagram IS accurately drawn.” Extra information added: “In the diagram: PQ = 8 cm QR = 16 cm”	
10		Wording added ‘Look at the diagram for Question 10 in the Diagram Booklet. It shows a graph that’. Wording removed ‘This graph’. Wording ‘12 hours’ removed and replaced with ‘8 hours’. Diagram enlarged but grid reduced to 8 hours and £12. Open headed arrows. Black grid lines. Graph line made thicker. Axes labels moved to above the vertical axes and left of the horizontal axes. Graph cut to allow for enlargement and to reduce the amount of information presented.	
11		Wording added ‘Look at the table for Question 11 in the Diagram Booklet. It’. Wording removed ‘The table’. Table enlarged. Number of people column widened, to allow for working out in the table.	

12	(a)	Wording added ‘Look at the diagram for Question 12(a) in the Diagram Booklet. It shows a grid.’ Grid enlarged. Shading changed. Shapes labelled ‘shape A’ and ‘shape B’. Grid cut. Black grid lines. Wording added ‘in the Diagram Booklet’.	Standard mark scheme
12	(b)	Wording added ‘Look at the diagram for Question 12(b) in the Diagram Booklet. It shows a grid.’ Wording ‘Here is the diagram Alex draws.’ removed and replaced with ‘The diagram shows the reflection, shape R, that Alex draws.’ Wording added ‘is shown in the Diagram Booklet.’ Diagram enlarged. Open headed arrows. Shading changed. Right shape labelled ‘shape P’. Left shape labelled ‘shape R’. Black grid lines.	Standard mark scheme
14		Wording added ‘Look at the diagram for Question 14 in the Diagram Booklet. You may be provided with two models. The models show a packet and a box. The diagram shows a packet and a box.’ Diagrams enlarged. Titles moved to above the diagrams. Dimension labels moved to the left.	Standard mark scheme
15		Wording added ‘Look at the diagram for Question 15 in the Diagram Booklet. It shows’. Wording removed ‘Here is’. Diagrams enlarged and stacked vertically. Spike removed from the spinner and replaced with a dot in the centre. Dice straightened up and rotated so that the number 6 is on the front section. Braille: Model of Tactile dice provided. . Sentence changed to “Ask for the dice for Question 15. It is a fair ordinary dice.”	Standard mark scheme
19		Wording added ‘Look at the diagram for Question 19 in the Diagram Booklet. It shows an incomplete frequency tree.’ Wording ‘this information’ removed and replaced with ‘the information above’. Wording added ‘in the Diagram Booklet.’ Diagram enlarged. Braille: Add (i), (ii), (iii), (iv), (v) and (vi) in the blank spaces on the diagram. Add answer lines “Ans: (i) __ (ii) __ (iii) __ (iv) __ (v) __ (vi) __”	Standard mark scheme
23	(b)	Wording added ‘Look at the diagram for Question 23(b) in the Diagram Booklet. It shows a number line’. Wording removed ‘below’. Diagram enlarged. Open headed arrow. Axis label moved to the right of the horizontal axis.	Standard mark scheme
23	(c)	Letter ‘g’ changed to ‘t’.	Standard mark scheme but note letter change.

24	<p>Wording added ‘Look at the diagram for Question 24 in the Diagram Booklet. It shows a triangle ABC and a rectangle PQRS.’</p> <p>Wording removed ‘Here is a triangle and a rectangle.’ Triangle labelled ABC.</p> <p>Rectangle labelled PQRS. Diagram enlarged. Diagrams stacked vertically.</p> <p>Right angle made more obvious. Shape labels moved to the left and to above the rectangle.</p> <p>Wording added ‘In triangle ABC: AB is marked <math>6x</math>; BC is marked 8; Angle ABC is a right angle.</p> <p>In rectangle PQRS: PQ is marked 5; PS is marked <math>4x - 1</math>’</p>	Standard mark scheme
26	Letter ‘d’ changed to ‘n’.	Standard mark scheme but note letter change.
28	<p>Wording added ‘Look at the diagram for Question 28 in the Diagram Booklet. It shows five graphs labelled A – E.’</p> <p>Wording removed ‘Here are five graphs.’ Diagrams enlarged. Open headed arrows.</p> <p>Graphs labelled ‘Graph A’, ‘Graph B’, ‘Graph C’, ‘Graph D’, and ‘Graph E’.</p> <p>Axes labels moved to the top of the vertical axes and to the right of the horizontal axes.</p> <p>Wording added ‘below’. Table enlarged and left aligned.</p>	Standard mark scheme

