

Higher

GCSE

Mathematics - Paper 3

J560/03: Paper 3 (Foundation tier)

General Certificate of Secondary Education

Mark Scheme for November 2023

GRADEUP.UK

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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MARKING INSTRUCTIONS

PREPARATION FOR MARKING RM ASSESSOR

1. Make sure that you have accessed and completed the relevant training packages for on-screen marking: *RM Assessor Online Training*; *OCR Essential Guide to Marking*.
2. Make sure that you have read and understood the mark scheme and the question paper for this unit. These are available in RM Assessor.
3. Log-in to RM Assessor then mark and annotate the **required number** of practice responses (“scripts”) and the **required number** of standardisation responses.

MARKING

1. Mark strictly to the mark scheme.
2. Marks awarded must relate directly to the marking criteria.
3. The schedule of dates is very important. It is essential that you meet the RM Assessor 50% and 100% deadlines. If you experience problems, you must contact your Team Leader (Supervisor) without delay.
4. Annotations available in RM Assessor. These **must** be used whenever appropriate during your marking.

Annotation	Meaning
	Correct
	Incorrect
BOD	Benefit of doubt
FT	Follow through

ISW	Ignore subsequent working (after correct answer obtained), provided method has been completed
M0	Method mark awarded 0
M1	Method mark awarded 1
M2	Method mark awarded 2
A1	Accuracy mark awarded 1
B1	Independent mark awarded 1
B2	Independent mark awarded 2
MR	Misread
SC	Special case
^	Omission sign
BP	Blank page
SEEN	Seen

For a response awarded zero (or full) marks a single appropriate annotation (cross, tick, M0 or ^) is sufficient, but not required. For responses that are not awarded either 0 or full marks, you must make it clear how you have arrived at the mark you have awarded and all responses must have enough annotation for a reviewer to decide if the mark awarded is correct without having to mark it independently.

It is vital that you annotate standardisation scripts fully to show how the marks have been awarded.

Subject-Specific Marking Instructions

5. **M** marks are for using a correct method and are not lost for purely numerical errors.
A marks are for an accurate answer and depend on preceding **M** (method) marks. Therefore **M0 A1** cannot be awarded.
B marks are independent of **M** (method) marks and are for a correct final answer, a partially correct answer, or a correct intermediate stage.
SC marks are for special cases that are worthy of some credit.
6. The following abbreviations are commonly found in GCSE Mathematics mark schemes.
- **figs 237**, for example, means any answer with only these digits. You should ignore leading or trailing zeros and any decimal point e.g. 237000, 2.37, 2.370, 0.00237 would be acceptable but 23070 or 2374 would not.
 - **isw** means **ignore subsequent working** after correct answer obtained and applies as a default.
 - **nfw** means **not from wrong working**.
 - **oe** means **or equivalent**.
 - **rot** means **rounded or truncated**.
 - **soi** means **seen or implied**.
 - **dep** means that the marks are **dependent** on the marks indicated. You must check that the candidate has met all the criteria specified for the mark to be awarded.
 - **with correct working** means that full marks **must not** be awarded without some working. The required minimum amount of working will be defined in the guidance column and **SC** marks given for unsupported answers.
7. Anything in the mark scheme which is in square brackets [...] is not required for the mark to be earned, but if present it must be correct.
8. Unless the command word requires that working is shown and the working required is stated in the mark scheme, then if the correct answer is clearly given and is not from wrong working **full marks** should be awarded.

Do not award the marks if the answer was obtained from an incorrect method, i.e. incorrect working is seen and the correct answer clearly follows from it.

9. Where follow through (**FT**) is indicated in the mark scheme, marks can be awarded where the candidate's work follows correctly from a previous answer whether or not it was correct. For questions with FT available you must ensure that you refer back to the relevant previous answer. You may find it easier to mark these questions candidate by candidate rather than question by question.

Figures or expressions that are being followed through are sometimes encompassed by single quotation marks after the word *their* for clarity, e.g. FT $180 \times (\textit{their} \text{'37'} + 16)$, or FT $300 - \sqrt{(\textit{their} \text{'52'} + 72)}$. Answers to part questions which are being followed through are indicated by

e.g. FT $3 \times \textit{their} (a)$.

10. In questions **with no final answer line**, make no deductions for wrong work after an acceptable answer (i.e. **isw**) unless the mark scheme says otherwise, indicated by the instruction 'mark final answer'.
11. In questions **with a final answer line and incorrect answer given**:
- (i) If the correct answer is seen in the body of working and the answer given on the answer line is a clear transcription error allow full marks unless the mark scheme says 'mark final answer'. Place the annotation ✓ next to the correct answer.
 - (ii) If the correct answer is seen in the body of working but the answer line is blank, allow full marks. Place the annotation ✓ next to the correct answer.
 - (iii) If the correct answer is seen in the body of working but a completely different answer is seen on the answer line, then accuracy marks for the answer are lost. Method marks could still be awarded if there is no other method leading to the incorrect answer. Use the **M0**, **M1**, **M2** annotations as appropriate and place the annotation ✗ next to the wrong answer.
12. In questions **with a final answer line**:
- (i) If one answer is provided on the answer line, mark the method that leads to that answer. A correct step, value or statement that is not part of the method that leads to the given answer should be awarded **M0** and/or **B0**.
 - (ii) If more than one answer is provided on the answer line and there is a single method provided, award method marks only.
 - (iii) If more than one answer is provided on the answer line and there is more than one method provided, award marks for the poorer response unless the candidate has clearly indicated which method is to be marked.

13. In questions with **no final answer line**:
- (i) If a single response is provided, mark as usual.
 - (ii) If more than one response is provided, award marks for the poorer response unless the candidate has clearly indicated which response is to be marked.
14. When the data of a question is consistently misread in such a way as not to alter the nature or difficulty of the question, please follow the candidate's work and allow follow through for **A** and **B** marks. Deduct 1 mark from any **A** or **B** marks earned and record this by using the **MR** annotation. **M** marks are not deducted for misreads. If a candidate corrects the misread in a later part, do not continue to follow through, but award **A** and **B** marks for the correct answer only.
15. Unless the question asks for an answer to a specific degree of accuracy, always mark at the greatest number of significant figures even if this is rounded or truncated on the answer line. For example, an answer in the mark scheme is 15.75, which is seen in the working. The candidate then rounds or truncates this to 15.8, 15 or 16 on the answer line. Allow full marks for the 15.75.
16. Ranges of answers given in the mark scheme are always inclusive.
17. For methods not provided for in the mark scheme give as far as possible equivalent marks for equivalent work. If in doubt, consult your Team Leader.
18. If in any case the mark scheme operates with considerable unfairness consult your Team Leader.

Question			Answer	Marks	Part marks and guidance
For x accept 1x throughout					
1	(a)		six correct lines of symmetry only	3	B1 for each correct letter Mark intention not cutting parallel edges or jaws of C Lines solid, dashed, freehand may be short T - 1 line, C - 1 line, X - 4 lines
1	(b)		4	1	Accept "four" Ignore other comments that don't invalidate such as "clockwise"
2	(a)		seven hundred[s]	1	Not 7 hundred[s]
2	(b)		8 000 000	1	Not 8 million
3	(a)		Prime numbers only clearly indicated	1	Accept any clear indication. e.g. Ringed, ticked, others deleted
3	(b)	(i)	35 - 32	1	Mark dotted answer line if different to tiles
3	(b)	(ii)	32	1	
4	(a)	(i)	$\frac{1}{5}$ or 0.2 or 20%	1	Accept an equivalent fraction or "one fifth" but not ratio e.g. 1 : 5 or 1 in 5 or words e.g. unlikely Ignore attempts to cancel or change form once correct answer seen

Question			Answer	Marks	Part marks and guidance
4	(a)	(ii)	$\frac{4}{5}$ or 0.8 or 80%	1FT	FT 1 – <i>their(a)(i)</i> Accept equivalent fraction or “four fifths” but not ratio e.g. 4 : 5 or 4 in 5 or words e.g. likely Ignore attempts to cancel or change form once correct answer seen
4	(b)		An example using the spinner that has a probability of 0 e.g. [landing/spinning/getting a] 6	1	Condone: “Getting a number that is not on the spinner” oe Do not accept descriptions of events other than numbers e.g. it never stops spinning “There’s no 0 on the spinner” scores 0 “Getting a 0” scores 1 Condone “dice” for “spinner”
5			> =	2	B1 for each
6			40	2	M1 for $(599 - 119) \div 12$ oe For M1 accept 480 for $599 - 119$ or $12x + 119 = 599$ A common MR is 199 for 119. M1 still available for $(599 - 199) \div 12$
7	(a)		5 : 1	2	M1 for 40 : 8 oe seen or 1 cm : 2 mm seen For M1 condone common units included in “correct” ratio e.g. 5 mm : 1 mm or 40 mm : 8 mm or 4 cm : 0.8 cm
7	(b)		1.25 or $1\frac{1}{4}$ or $\frac{5}{4}$ oe	1	Accept any equivalent fraction Condone answer 1 : 1.25 oe
8	(a)	(i)	7a final answer	1	Accept $7 \times a$ and $a7$ and $a \times 7$

Question			Answer	Marks	Part marks and guidance
8	(a)	(ii)	$-x + 4 - 3y$ final answer	2	B1 for $-x$ seen or $[+]4 - 3y$ seen in final answer Accept answer in any order
8	(b)		1	1	
9			$15 \div (7 - 2) = 3$ $(5 \times 2 + 3) \times 2 = 26$	2	B1 for each Ignore extra brackets that do not invalidate the answer(s) e.g. $(15 \div (7 - 2)) = 3$
10	(a)		$5(x - 4)$	1	Condone missing final bracket
	(b)		$7x(2 + x)$	2	B1 for $7(2x + x^2)$ or $x(14 + 7x)$ Condone missing final bracket
11	(a)		0.2 , 0.42 , 0.14 , 0.08	2	B1 for 3 correct values or [total =] 50 seen Condone missing/added non-essential zeros throughout e.g. .20 for 0.2 50 may be seen in part (b) even as denominator or implied by $\frac{4}{25}$
	(b)		0.16 oe	2	No FT Accept equivalent fraction e.g. $\frac{8}{50}$ or 16% for 2 marks Ignore attempts to cancel or change form once correct answer seen
12	(a)		384	3	M2 for $[0].8 \times 480$ oe or M1 for $[0].2 \times 480$ oe implied by 96 $480 - ([0].2 \times 480)$ If non-calculator method, it must be a full method e.g. $10\% = 48$ or $[10\% =] 480 \div 10 = a$ $20\% = 96$ $[20\% =] a \times 2 = b$ $480 - 96 = \dots$ $480 - b = \dots$

Question	Answer	Mark s	Part marks and guidance
	(b) 7.5	3	<p>M2 for $10.5 \div 1.4$ oe or B1 for 1.4 oe seen or 140% associated with 10.5</p> <p>For B1 allow fraction but not just 140%</p>
13	6	3	<p>M2 for $\frac{1}{4} \times 60 \times \frac{2}{5}$ oe or M1 for $\frac{1}{4} \times 60$ soi 15 or $\frac{1}{4} \times \frac{2}{5}$ soi $\frac{2}{20}$ or $\frac{1}{10}$ or 0.1</p> <p>If 0 scored, SC1 for 15 or 24 seen</p> <p>e.g. $0.25 \times 60 \times 0.4$ or $60 \div 4 \div 2.5$ May use percentage method</p> <p>NB $\frac{1}{4}$ of 60 = 16 is incorrect and scores M0 as no operation is shown</p>
14	(a) $v - u = at$ seen as single statement	1	<p>Accept e.g. $-v + u = -at$ but not e.g. $\frac{v-u}{t} = at \div t$</p>
	(b) 1.5 oe	2	<p>M1 for correct substitution $\frac{9-3}{4}$ oe</p> <p>e.g. $1\frac{1}{2}$ or $\frac{6}{4}$ or $\frac{3}{2}$</p> <p>For M1 accept a two-step evaluation with an arithmetic slip eg $9 - 3 = 5$ followed by $5 \div 4$ Do not accept $\frac{3-9}{4}$ for M1</p>
15	(a) (i) [Two equal] radii oe	1	<p>Must refer to radius</p>
	(a) (ii) Isosceles	1	<p>Condone poor spelling</p>

Question		Answer	Marks	Part marks and guidance
	b	2880	3	<p>M2 for $\left(\frac{360}{20} - 2\right) \times 180$ oe or $\frac{360}{20} \times (80 + 80)$ oe</p> <p>M1 for $\frac{360}{20}$ soi 18 or 80 or 160</p> <p>For M2 accept 16×180 or 18×160 or $\left(180 - \frac{360}{18}\right) \times 18$ oe or $(180 - 20) \times \frac{360}{20}$</p> <p>80 or 160 not from $20 + 20 + 20 + \dots$ 80 or 160 may be seen in correct place on diagram</p>
16	(a)	Correct comment implying addition or 5 parts and $\frac{2}{5}$	2	<p>B1 for each</p> <p>Mark the best bit if no contradiction See appendix Accept denominator should be 5 Condone add them to get $\frac{2}{5}$ Accept he hasn't added them with $2 + 3 = 5$ seen Expect no reference to numerator but, if referenced, must be 2.</p>
16	(b)	250	3	<p>M2 for $\frac{100}{2} \times (2 + 3)$ or $100 + 150$ or M1 for $\frac{100}{2}$ soi 50 or [Emma] 150</p> <p>Accept 5 for $2 + 3$</p> <p>50 may be multiplier in ratio method: e.g. $2 : 3$ $\times 50$ $100 : 150$ $\times 50$</p>
17	(a)	28	2	M1 for $(11 + 3) [\times 2]$ oe soi 14

Question		Answer	Marks	Part marks and guidance	
17	(b)	[No] and $10 + 10 = 20$ or $20 \div 2 = 10$ and recognition that height is 0 or not included oe	2	B1 for each	See appendix Accept $10 \times 2 = 20$ (unless clearly implying area) Accept e.g. "adding lengths makes 20" for $10 + 10 = 20$ B0 B1 and B1 B0 are possible
18		2.2[0] with correct working	6	<p>B5 for answer 2 or 2.203 to 2.204 with correct working</p> <p>OR</p> <p>M2 for [simple] [£] $540 + \frac{540 \times 2 \times 5}{100}$ oe soi 594</p> <p>or</p> <p>M1 for $\frac{540 \times 2}{100}$ oe soi 10.8[0]</p> <p>and</p> <p>M2 for [compound] [£] 540×1.02^5 oe soi 596.2[0]</p> <p>or</p> <p>M1 for 540×1.02^k oe (k positive integer)</p> <p>If 0 or 1 awarded, instead award SC3 for answer 2.2[0] or -2.2[0] OR SC2 for an answer that rounds to 2.2[0] or to -2.2[0]</p>	<p>Correct working requires evidence of at least M1 and M1</p> <p>With correct working, accept -2.2[0] for 6 marks and -2.203 to -2.204 for B5</p> <p>May be implied by 54 nfw</p> <p>See appendix for non-calculator methods with values not 54, 594 or 10.8</p> <p>May be $540 \times 1.02^5 - 540$ soi 56.2...</p> <p>Implied by 561.8...or 573.05...or 584.5... etc</p> <p>with no working or insufficient working</p>

19	(a)	(i)	Points plotted at (3000, 460) and (1300, 320)	1		Half square tolerance Use overlay as guide
		(ii)	Positive	1		Ignore reference to strength
	(b)	(i)	Point at (1500, 730) circled	1		
		(ii)	The jigsaw took a long time for a small/similar number of pieces oe	1		See appendix Must include reference to both the time taken and the number of pieces
	(c)	(i)	Ruled line of best fit drawn	1		Condone good freehand Line must reach between (500, 120) and (500, 220) AND (4500, 540) and (4500, 660)
		(ii)	<i>Their</i> straight line used to give number of pieces for 500 minutes	1 FT	Strict FT from their intended straight line of best fit	Tolerance ± 50 pieces ($\frac{1}{2}$ small square = 50 pieces) If intersection between vertical gridlines allow reading at either gridline e.g. 3340 may be 3300 or 3400 Mark to candidate's benefit
	(d)		[8000 pieces is] beyond the given data oe or the trend/pattern may not continue oe	1		See appendix Do not accept "It only goes up to 5000" or "It goes off the scale" or any suggestion that the graph is not big/accurate enough Interpret "it" as reference to scale/diagram unless otherwise qualified

20		195	4	<p>B3 for answer that rounds to 195 OR M3 for $\frac{[\pi \times]130}{[\pi \times]46} \times 69$ oe or M2 for $\frac{[\pi \times]130}{[\pi \times]46}$ or $[\pi \times]130 \times 69$ or M1 for $\pi \times 130$ soi 408.4... or $\pi \times 46$ soi 144.5...</p>	<p>May be in stages or in metres</p> <p>Implied by 2.82[6...] or 8970 or 28180. ...</p> <p>If multiple calculations refer to general guidance</p>
21	(a)	Repeating pattern	1		<p>Accept any correct pattern that repeats annually Accept reference to seasons for Qs e.g. Lower in q2 than q1 or Highest in q3 or Lowest in q4 etc or Sales in q1 or 2 or 4 rise each year Do not accept "Low sales in 2023" etc</p>
	(b)	2023 and [Q3 is] lower than in the other years oe	1		<p>Accept summer or "it" etc for Q3 Condone [Year] 3 for [Year] 2023 <u>Examples</u> It didn't increase as much as other years They had the least amount of sales. Sales rose but not as much as other years It is lower The sales are lower/est [in 2023] The graph shows less sales of products (BOD)</p>

	(c)	The trend/pattern will continue oe	1		Do not accept references to the weather Do not accept "Sales stay the same" Accept e.g. Sales will increase The pattern stays the same
22	(a)	1	1		Accept (0, 1) and $y = 1$ and $+1$
	(b)	$2 \times 40 + 1$ soi 81 or $(80 - 1) \div 2$ soi 39.5 oe Above	M1 A1		e.g. by (40, 81)
	(c)	$y = 2x + k, k \neq 1$	1		
23	a	Any value of r in $6.15 \leq r < 6.2$	1		
	b	Any value of h in $6.25 \leq h < 6.3$	1		
	c	Any pair of values where $r > h$ and $6.2 < r < 6.25$ and $6.2 \leq h < 6.25$	1		

24 (2)		33[.3...]% oe nfw	4	<p>M3 for $\frac{4}{12} [\times 100]$</p> <p>OR</p> <p>M1 for 12 correct combinations shown and no repeats or for 4×3 or 12 [combinations]</p> <p>M1 for BG (£7), VS (£7), VG (£6), TG (£7) only or 4 [combinations less than £8]</p> <p>M1 for $\frac{\text{their number of combinations}}{\text{their number of meals}} [\times 100]$</p>	<p>Accept combinations of meals in any order or total costs shown. Combinations: BS, BC, BG, LS, LC, LG, VS, VC, VG, TS, TC, TG 12 used as denominator scores M1 Corresponding costs: 8, 9, 7, 9, 10, 8, 7, 8, 6, 8, 9, 7 4 used as numerator scores M1</p>
25 (5)	(a)	5.95	2	<p>M1 for $500 \times 1.19 \times 10^{-2}$ oe</p>	
	(b)	190.7 to 190.8 or 191 nfw	4	<p>M1 for $1.19 \times 10^{-2} \times 1000$ soi 11.9 [g]</p> <p>M1 for 0.21×0.297 oe soi 0.06237 or 0.0624</p> <p>M1 for $\frac{\text{figs } 119}{\text{figs } 21 \times \text{figs } 297}$ or $\frac{\text{figs } 119}{\text{figs } 6237}$ or $\frac{\text{figs } 119}{\text{figs } 624}$</p>	<p>First two M1 marks may be seen as part of an embedded calculation e.g. [0.06237 =] $21 \times 29.7 \div 100 \div 100$</p>

26 (6)		$a = 3, b = -13, c = -5$ with correct working	5	<p>M1 for $(3x+2)(x+c)$ soi</p> <p>B1 for $a = 3$</p> <p>B1 for $c = -5$</p> <p>AND</p> <p>M1 for $3c+2$ or $3 \times \text{their } c+2$ either alone or as coefficients of x in a full or partial expansion</p> <p>B1 for $b = -13$</p>	<p>Correct working requires evidence of at least one M1</p> <p>Condone $3x+2 \times x+c$ as soi</p> <p>Grid method for expanding e.g.</p> <table border="1" data-bbox="1637 408 2022 563"> <thead> <tr> <th>x</th> <th>x</th> <th>c</th> </tr> </thead> <tbody> <tr> <td>$3x$</td> <td>$3x^2$</td> <td>$3cx$</td> </tr> <tr> <td>2</td> <td>$2x$</td> <td>$2c$</td> </tr> </tbody> </table> <p>M1 for grid frame only if products seen</p> <p>M1 for shaded cells correct</p> <p>Accept $x(3c+2)$ and $3cx+2x$ ignore coefficient of x^2 and constant</p> <p>Condone embedded answers for b or c provided they are not then contradicted on answer line eg. B1 for $(x-5)$ and B1 for $-13x$ seen</p>	x	x	c	$3x$	$3x^2$	$3cx$	2	$2x$	$2c$
x	x	c												
$3x$	$3x^2$	$3cx$												
2	$2x$	$2c$												

APPENDIX

Non Calculator methods for percentages.

Labels only

This is when labels such as 10% = are used.

If only labels are used the final answer scores full marks if it is correct.

Condone a numerical slip if the answer is correct.

If there is an error in the values and so the **final answer is incorrect** this cannot score method marks

e.g. Find 65% of 80

Method scoring M1A1

$$10\% = 8$$

$$5\% = 4$$

$$50\% = 40$$

$$65\% = 52 \quad \checkmark \quad \text{M1A1}$$

$$10\% = 8$$

$$5\% = 5 \quad \times$$

$$50\% = 40$$

$$65\% = 52 \quad \checkmark \quad \text{M1A1}$$

condone this slip as answer correct

Method scoring M0A0

$$10\% = 8$$

$$5\% = 6 \quad \times$$

$$50\% = 40$$

$$65\% = 54 \quad \times \quad \text{M0}$$

Do not condone this slip as answer incorrect

Build up method

This is where the candidate finds the percentages to build up to the required value but shows the operations used.

e.g. Find 65% of 80

$$10\% = 80 \div 10 = x$$

$$5\% = x \div 2 = y$$

$$50\% = x \times 5 = z$$

$$65\% = x + z + y$$

Because the operations have been shown and they are correct, if there is an error in one of x, y or z, method marks can still be earned

Question 16(a)

Statement	Reason	Mark
He should have used 5	Correct, though stronger with “as denominator”	1
He should have added the parts	Correct	1
$2 + 3 = 5$	Sufficient to highlight the mistake	1
He adds the[m] both up [he gets 2/5]	BOD as implication of addition of 2 and 3	1
He needs to add the numbers to get the bottom	BOD as implication of addition of 2 and 3	1
He adds 2 and 3 to get 5	Clear what is added	1
He didn’t add up the total amount of money given	Ignore the reference to the amount of money and mark the “adding”	1
He hasn’t added the ratios together	BOD implies adding shares/parts	1
He has only split the money into thirds [and not fifths]	Dev’s error is correctly highlighted.	1
He has not figured out the total he has based it on the ratio	BOD total implies adding	1
He has forgotten to solve out how much money there is	No implication of adding	0
He only used the numbers in the ratio	No indication of the error made	0

Question 17b

Statement	Reason	Mark
[No as] the length is 10 cm, the top and bottom would already add to 20 cm	BOD $10 + 10 = 20$ and ALREADY implies 0 cm for other sides	2
[No.] To find the perimeter, you add up all of the sides and $10 + 10 = 20$ which does not include the 2 extra sides	Sum seen for B1. Recognises other sides not included	2
2 lengths make 20 so any width would be more than 20	Sum implied for B1 Recognises other sides not included	2

10 + 10 = 20. No, it would be a straight line	Correct	2
[No.] That would mean the shape only has 2 sides	Reason implies 0 cm for other two sides	1

Question 19b(ii)

Statement	Reason	Mark
It has a small number of pieces but takes a long time to complete		1
It took the longest even though it only had 1500 pieces	Assume time	1
Because it took the most minutes even with low pieces		1
It had the most amount of time to complete	No reference to number of pieces	0
It took more time than others	No reference to number of pieces	0
It took the most amount of time for a 1500 piece puzzle	Too specific not referencing other puzzles and, thus, incorrect	0
It took the most amount of time compared to other puzzles	No reference to number of pieces. Just like saying "It took longest"	0
Most average area for this puzzle piece most average number and time taken	Garbled	0
It is furthest away from the line of best fit and the rest of the results	True depending on the line calculated/drawn but there will always be one such point and not all will be an outlier	0
Because it is not near the points towards the line	Getting there but which points are they thinking of?	0
It doesn't fit the trend	Vague	0
It doesn't follow the correlation of the other points	Doesn't explain why and others could do the same	0

Question 19d

Statement	Reason	Mark
It only goes up to 5000 and it may differ with a much larger jigsaw	First part does not score the mark but BOD second part recognises trend not continuing	1
She shouldn't because on of (<i>none of?</i>) the pieces is nowhere near the other pieces so she will get it wrong.	BOD beyond the data and not referring to scale	1
8000 is beyond the range, her data only provides up to 5000 pieces	OK as references data not scale	1
Her values aren't great enough	Not clearly saying that these are beyond data. Could be referring to scales	0
The graph doesn't go that far	Referring to scales	0
The pieces could be easier so less time	Incorrect on all counts	0
There's not 8000 pieces, it only goes up to 5000	It taken to be a reference to scale	0
8000 is not on the diagram	Referring to size of diagram and not range of the data	0
The data wasn't given	Unclear, as this may mean that 8000 is not a plotted point	0

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