

GCSE MATHEMATICS 8300/2F

Foundation Tier Paper 2 Calculator

Mark scheme

June 2024

Version 1.0 Final



Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

No student should be disadvantaged on the basis of their gender identity and/or how they refer to the gender identity of others in their exam responses.

A consistent use of 'they/them' as a singular and pronouns beyond 'she/her' or 'he/him' will be credited in exam responses in line with existing mark scheme criteria.

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Glossary for Mark Schemes

GCSE examinations are marked in such a way as to award positive achievement wherever possible. Thus, for GCSE Mathematics papers, marks are awarded under various categories.

If a student uses a method which is not explicitly covered by the mark scheme the same principles of marking should be applied. Credit should be given to any valid methods. Examiners should seek advice from their senior examiner if in any doubt.

M	Method marks are awarded for a correct method which could lead to a correct answer.
Α	Accuracy marks are awarded when following on from a correct method. It is not necessary to always see the method. This can be implied.
В	Marks awarded independent of method.
ft	Follow through marks. Marks awarded for correct working following a mistake in an earlier step.
SC	Special case. Marks awarded for a common misinterpretation which has some mathematical worth.
M dep	A method mark dependent on a previous method mark being awarded.
B dep	A mark that can only be awarded if a previous independent mark has been awarded.
oe	Or equivalent. Accept answers that are equivalent. eg accept 0.5 as well as $\frac{1}{2}$
	2
[a, b]	Accept values between a and b inclusive.
[a, b)	Accept values a ≤ value < b
3.14	Accept answers which begin 3.14 eg 3.14, 3.142, 3.1416
Use of brackets	It is not necessary to see the bracketed work to award the marks.

Examiners should consistently apply the following principles.

Diagrams

Diagrams that have working on them should be treated like normal responses. If a diagram has been written on but the correct response is within the answer space, the work within the answer space should be marked. Working on diagrams that contradicts work within the answer space is not to be considered as choice but as working, and is not, therefore, penalised.

Responses which appear to come from incorrect methods

Whenever there is doubt as to whether a student has used an incorrect method to obtain an answer, as a general principle, the benefit of doubt must be given to the student. In cases where there is no doubt that the answer has come from incorrect working then the student should be penalised.

Questions which ask students to show working

Instructions on marking will be given but usually marks are not awarded to students who show no working.

Questions which do not ask students to show working

As a general principle, a correct response is awarded full marks.

Misread or miscopy

Students often copy values from a question incorrectly. If the examiner thinks that the student has made a genuine misread, then only the accuracy marks (A or B marks), up to a maximum of 2 marks are penalised. The method marks can still be awarded.

Further work

Once the correct answer has been seen, further working may be ignored unless it goes on to contradict the correct answer.

Choice

When a choice of answers and/or methods is given, mark each attempt. If both methods are valid then M marks can be awarded but any incorrect answer or method would result in marks being lost.

Work not replaced

Erased or crossed out work that is still legible should be marked.

Work replaced

Erased or crossed out work that has been replaced is not awarded marks.

Premature approximation

Rounding off too early can lead to inaccuracy in the final answer. This should be penalised by 1 mark unless instructed otherwise.

Continental notation

Accept a comma used instead of a decimal point (for example, in measurements or currency), provided that it is clear to the examiner that the student intended it to be a decimal point.

Q	Answer	Mark	Comments	
	27 100	B1		
1(a)	Additional Guidance			
	Ignore attempt to simplify after correct	t answer	seen	

Q	Answer	Mark	Comments	
	0.4	B1	oe decimal eg 0.40	
1(b)	Additional Guidance			
	.4			B1

Q	Answer	Mark	Comments
1(c)	35	B1	

Q	Answer	Mark	Comments			
	5 <i>x</i>	B1				
2(a)	Additional Guidance					
	$5 \times x$ or $x \times 5$ or $x5$			В0		

Q	Answer	Mark	Comments	
	10w	B1		
2(b)	Additional Guidance			
	$10 \times w$ or $w \times 10$ or $w10$			В0

Q	Answer	Mark	Comments		
	2	B1			
2(c)	Additional Guidance				
_(0)	$\frac{2}{1}$ or 2 ÷ 1			В0	

Q	Answer	Mark	Comments		
	y ³	B1			
2(d)	Additional Guidance				
	$y^2 \times y$ or $y \times y^2$			В0	

Q	Answer	Mark	Comments
3(a)	C	B1	

Q	Answer	Mark	Comments
3(b)	a or d	B1	accept a and d

Q	Answer	Mark	Comments	
	0	B1	oe	
3(c)	Ad	ditional G	Guidance	
	Accept none, zero, nought etc			

Q	Answer	Mark	Comments	
	9.03	B1		
	Additional Guidance			
4(a)	9.03p			B1
	903p on the answer line	B1		
	903 on the answer line with £ not crossed out			В0

Q	Answer	Mark	Comments	
	2.56	B1		
Additional Guidance		Guidance		
4(b)	2.56p			B1
	256p on the answer line			B1
	256 on the answer line with £ not crossed out			В0

Q	Answer	Mark	Comments	
5(a)	5 × 20 or 100 or 2 × 20 or 40 or 5 - 2 or 3 or 5 × 4 or 20 and 2 × 4 or 8 and 20 - 8 or 12	M1	oe eg 20 + 20 + 20 eg 20 + 20 + 20 + 20 + 20 may be by the diagram	
	60	A1		
	Ad	ditional G	Guidance	
	Answer 60b BOD 60 bottles			M1A1
	Further work eg 60 + 30 = 90			M1A0

Q	Answer	Mark	Comments	
	Alternative method 1			
	$6\frac{1}{4} \times 20 \text{ or } 125$	M1	oe eg $6 \times 20 + \frac{1}{4} \times 20$ or may be by the diagram	120 + 5
	their 125 × 17.5(0)	M1	oe	
	2187.5(0)	A1		
	Alternative method 2			
	$6\frac{1}{4} \times 17.5(0)$ or 109.375 or 109.37 or 109.38	M1	oe eg $6 \times 17.5(0) + \frac{1}{4} \times 1$ or $105 + 4.375$	7.5(0)
	their 109.375 × 20	M1	oe	
	2187.5(0)	A1		
5(b)	Alternative method 3			
0(2)	20 × 17.5(0) or 350	M1	oe	
	their $350 \times 6\frac{1}{4}$	M1	oe eg their $350 \times 6 + \frac{1}{4} \times$	their 350
			or 2100 + 87.5(0)	
	2187.5(0)	A1		
	Additional Guidance			
	2187.50p			M1M1A1
	Alt 1			
	6 × 20 = 120			MO
	120 × 17.5(0)			M1A0
	Alt 2			
	$6 \times 17.5(0) = 105$			M0
	105 × 20			M1A0

Q	Answer	Mark	Comments	
	DC or CD	B1		
6(0)	Additional Guidance			
6(a)	CDE			В0
	C : D			В0

Q	Answer	Mark	Comments	
	Rectangle drawn with an area of 10	B2	any orientation B1 10 seen or any polygon drawn different given shape with an area of	
6(b)	Additional Guidance B1 may be awarded for correct work with no shape or incorrect shape, even if this is seen amongst multiple shapes			
	Mark intention			
	10 may be seen on the diagram			
	Draws the given shape reflected or in	a differe	nt orientation	В0

Q	Answer	Mark	Comments	
	Alternative method 1: one side measured			
	7.4 (cm) or 74 (mm) or 2.9 (inches)	B1	± 2 mm allow [2.8, 3)	
	their 7.4×3 or their 74×3 or their 2.9×3 or [21.6, 22.8] or [216, 228] or [8.4, 9)	M1	oe their 7.4 must be [7, 8] their 74 must be [70, 80] their 2.9 must be [2.6, 3.2]	
	[21.6, 22.8] cm or [216, 228] mm or [8.4, 9) inches	A1ft	ft their 7.4 or their 2.9 with B0M1 awarded	
7	Alternative method 2: more than o	ne side n	neasured	
	Each side measured as 7.4 (cm) or 74 (mm) or 2.9 (inches)	B1	± 2 mm allow [2.8, 3)	
	their 7.4 + their 7.4 + their 7.4 or their 74 + their 74 + their 74 or their 2.9 + their 2.9 + their 2.9 or [21.6, 22.8] or [216, 228] or [8.4, 9)	M1	oe their 7.4 must be [7, 8] their 74 must be [70, 80] their 2.9 must be [2.6, 3.2]	
	[21.6, 22.8] cm or [216, 228] mm or [8.4, 9) inches	A1ft	ft their 7.4 or their 2.9 with B0M1 awarded	

Additional guidance is on next page

	Additional Guidance	
	In alternative method 2 the sides do not have to be equal	
	eg	
	7.5, 7.5, 7.6	B1
	= 22.6	M1A0ft
	Cannot access the A mark as there are no units.	
	eg	
	sides measured as 7.6, 7.6, 7.7	В0
	7.6 + 7.6 + 7.7	M1
	= 22.9 cm	A1ft
7 cont'd	Cannot gain the B mark as 7.7 is out of range	
	eg	
	75, 80, 80	В0
	answer 235 mm	M1A1ft
	80 is out of range for the B mark but in range for the M mark. Method mark implied by correct answer for their values	
	Further work after the correct answer seen eg 7.4 and $22.2 \div 2 = 11.1$ cm	B1M1A0
	Ignore subsequent rounding once correct answer is seen	
	Accept correct units seen with their answer in the working, even if missing from the answer line, provided they are not contradicted.	
	Ignore any measurement of the height for the B mark	

Q	Answer	Mark	Comments		
	56 – 17 or 39	M1			
	13	A1			
	Ado	ditional C	Guidance		
	M1 may be awarded for correct work even if this is seen in multiple attemp		nswer or incorrect answer,		
	Ignore any values for blue or white cu	ubes			
8(a)	eg G B W R 17 13 13 13 With R unambiguously linked with 13 May be seen as a ratio Unless contradicted on the answer line is awarded M1A1				
	17 (+) 13 (+) 13 (+) 13 without 13 lin	ked to red	I	M1A0	
	13 and answer 13 out of 56			M1A1	
	13 and answer $\frac{13}{56}$				
	13 and answer 56			M1A0	
	Answer $\frac{13}{56}$			M1A0	

Q	Answer	Mark	Comments		
	56 + 24 or 80	M1			
	0.4 × their 80 or 32	M1dep	oe eg $0.4 \times 56 + 0.4 \times 24$ or $9.6 + 22$	2.4	
	15	A1			
	Ad	ditional G	iuidance		
	M1 may be awarded for correct work even if this is seen in multiple attemp		nswer or incorrect answer,		
	15 and answer 15 out of 24		M1M1A1	1	
	15 and answer $\frac{15}{24}$ or $\frac{3}{8}$				
8(b)	Answer $\frac{15}{24}$			0	
	80 seen embedded in a fraction	M1			
	Answer $\frac{3}{8}$ with no other creditworthy work				
	Condone 80 × 40%		M1M1		
	40% of 80 is 2nd M0 unless recovered	ed			
	Build up methods for finding 40% of 80 must be completed to be awarded the M mark				
	eg 80 followed by 10% = 8 and 4 × 8 = 32				
	eg $0.1 \times 80 = 6$ and $4 \times 6 = 24$			ļ	
	eg 80 followed by $10\% = 6$ and $4 \times 6 = 24$				

Q	Answer	Mark	Comments		
	Alternative method 1				
	$270 \div 3$ or 90 or 270×50 or 13500 or $270 \times 0.5(0)$ or 135 $270 \div 3 \times 50$ or	M1 M1dep	oe		
	270 ÷ 3 × 0.5(0)				
	45 Alternative method 2	A1			
9	Correctly finds units and cost for at least 30 miles	M1	eg 30 miles = 10 units and 10 ur	nits cost (£)5	
	Correct method for cost of 270 miles	M1dep			
	45	A1			
	Ac	Additional Guidance			
	45.00(p)			M1M1A1	
	45.0			M1M1A0	
	Accept 0.33() or 33.()% for $\frac{1}{3}$				
	Further work eg 45 ÷ 2			M1M1A0	
	Embedded answer of 45 but not sele	cted		M1M1A0	

Q	Answer	Mark	Comments	
	2 × 8.5(0) or 17(.00)	M1	oe	
	38 – their 17 or 21	M1dep		
	their 21 ÷ 5 or 4.2	M1dep	oe eg 5 × 4.2(0)	
10(a)	4.20	A1	correct money notation SC2 5.90 SC1 5.9	
	Additional Guidance			
	Special case is for using 1 metre of li	nen at £8.	5(0)	
	Allow 4.20(p) for the A mark			
	4.20 ÷ 5 = 84p			M1M1M1 A0

Q	Answer	Mark	Comments	
	14 × 0.65 or 9.1(0)		oe	
	or		allow in pence	
	15 × 0.65 or 9.75			
	or	M1		
	10 ÷ 0.65 or 15.3() or 15.4			
	or			
	$(5-7\times0.65)\times2$ or $0.9(0)$			
	No and 15 with M1 awarded		oe	
	or	A1	eg No and she can get 1 more with M1	
	No and (£)9.75		awarded	
10(b)	Additional Guidance			
	Yes ticked			max M1A0
	No may be implied if neither box ticke			
	$0.65 \times 14 = 9.1$ she can buy another	No ticked	d	M1A1
	10 ÷ 0.65 = 15.38 No ticked			M1A0
	$0.65 \times 14 = 9.1$ she can buy more No ticked			M1A0
	She can get 15 not 14 No ticked			M0A0
	The left over change would make up button No ticked	another 6	5p so enough for another	M0A0

Q	Answer	Mark	Comments	
	All 4 points plotted correctly with a straight line joining them	B2	$\pm \frac{1}{2}$ square B1 at least two correct points mark intention for straight line	•
11(a)	Additional Guidance			
	Ignore additional or incorrect points for B2 or B1 Ignore any line or curve extended outside the range The correct position of the line implies correctly plotted points			

Q	Answer	Mark	Comments	
	Alternative method 1: uses the graph			
	Vertical line from $x = 2.5$ to their straight line	M1	$\pm \frac{1}{2}$ square implied by mark at correct point on graph or on vertical axis	
	their 8.5	A1ft	$\pm \frac{1}{2}$ square	
			ft their straight line graph if at least B1 awarded in (a)	
	Alternative method 2: substitutes into the equation			
11(b)	3 × 2.5 + 1	M1	oe	
11(0)	8.5	A1		
	Alternative method 3: uses values from the table			
	$\frac{7+10}{2}$	M1	oe eg $\frac{4+7+10+13}{4}$	
	8.5	A1		
	Additional Guidance			
	Alternative method 1 – must have a line in part (a)			
	Alternative method 1			
	A vertical line from the x -axis does not need to be drawn if the reading from the graph is correct within tolerance for their graph			

Q	Answer	Mark	Comments	
	35679	B2 last digit square and mide even with three of the following constraints met:		
		В3	only one squareonly one evenno repeatsascending order	
			or 97653	
			B1 last digit square with no squares	other
			or middle digit even with no	other evens
			or 35679 unordered, not	scoring B2
	Ado	ditional G	Guidance	
	Mark the answer line			
12	1 3 6 7 9 (two squares is only error)			B2
	3 5 6 7 1 (order is only error)			B2
	3 3 6 7 9 (repeat is only error)			B2
	0 3 6 7 9 (two even numbers)			B2
	3 3 2 3 9 (order wrong and repeats be digit is only square)	ut middle	digit is only even and/or last	B1
	3 3 2 3 4 (order wrong and two evens	but last o	digit is only square)	B1
	1 3 4 5 7 (middle digit is only even)			B1
	2 2 5 6 4 (last digit is only square)			
	23456			В0
	1 3 4 8 9			В0
	Must have 5 single digits			

Q	Answer	Mark	Comments	
	Alternative method 1: find total			
	4 × 10 or 40	M1	oe	
	their 40 – 5 – 8 – 9	M1	oe their 40 must be greater	than 22
	18	A1		
	Alternative method 2: trial and imp	provemer	nt	
13	One trial evaluated correctly	eg trials 12, $\frac{5+8+9+12}{4}$ =	: 8.5	
	The correct trial evaluated correctly	M1dep		
	18	A1		
	Additional Guidance			
	Embedded 18 without being selected as answer			M2A0

Q	Answer	Mark	Comments
14(a)	d + 4 or $4 + d$	B1	

Q	Answer	Mark	Comments		
	$3p$ or $3 \times p$ or $p \times 3$	B1			
14(b)	Additional Guidance				
	Condone $p3$ as this question is testinotation	ng inverse	e operations not expression	B1	

Q	Answer	Mark	Comments	
	3n-1 oe eg $2+(3n-3)$ B1 $3n+c$ where c can be an			value
	Ado	ditional C	Guidance	
	Ignore LHS of formula given eg $T_n =$	3 <i>n</i> – 1		B2
	Condone $n = 3n - 1$ or n th term = 3	<i>Bn</i> − 1		B2
	Allow a multiplication sign eg $3 \times n - 1$ or $n \times 3 - 1$			B2
	Allow other variables eg $3x - 1$			B2
15	3n + -1			B1
	3 <i>x</i>			B1
	пЗ			B1
	n3 – 1			B1
	3nth – 1			B1
	3nth			B0
	n3-1n		В0	

Q	Answer	Mark	Comments
40	segment	B1	region A
16	sector	B1	region B

Q	Answer	Mark	Comments	
	$\begin{pmatrix} 5 \\ 8 \end{pmatrix}$	B1		
17	Additional Guidance			
	ers for B1 but must have the			
	If signs are in front of 5 and 8 they must be +			

Q	Answer	Mark	Comments	
	$\frac{1}{4}$ (red) and $\frac{3}{4}$ (blue) for Bag A	B1	oe fractions, decimals or percentages	
18(a)	$\frac{3}{5}$ (white) and $\frac{2}{5}$ (green) for both sections for Bag B	B1	oe fractions, decimals or percentages	
	Additional Guidance			
	Percentages must have the % symbol			

Q	Answer	Mark	Comments	
18(b)	$\frac{1}{4} \times \frac{3}{5}$	M1	oe fractions, decimals or per correct or ft their tree diagrar probabilities > 0 and < 1	· ·
	$\frac{3}{20}$ or 0.15 or 15%	A1ft	correct or ft their tree diagram probabilities > 0 and < 1	n with both
	Additional Guidance			
	Further work after correct answer seen		M1A0	

Q	Answer	Mark	Comments	
	Alternative method 1			
	sin chosen or used	M1		
	31 × sin 24	M1dep	accept 31 × [0.4, 0.41]	
	[12.6, 12.61]	A1	accept 13 if M2 awarded	
	Alternative method 2			
	cos (90 – 24)	M1		
	31 × cos (90 – 24)	M1dep	accept 31 × [0.4, 0.41]	
19	[12.6, 12.61]	A1	accept 13 if M2 awarded	
	Ad	ditional G	Guidance	
	Check diagram for working			
	Allow correct use of sine rule to indic	ate sin 24		
	Ignore rounding or truncating after th	e correct a	answer is seen	
	sin 24 × 31			M2
	Do not accept answers from full sized or scale drawing			
	sin may be indicated by eg circling	S in SOH	CAH TOA	

Q	Answer	Mark	Comments	
	88(%) or 0.88	M1	oe eg 1 - 0.12	
	2200000 ÷ 88 (× 100) or 25000 (× 100)	M1dep	oe eg $2.2 \times 10^6 \div (100 - 12)$ or $2200000 \times [1.136, 1.14]$ or 2500000	2) (× 100)
	2.5×10^{6}	A1	oe standard form eg 2.500 SC1 2.2 × 10 ⁶ oe standard SC1 any value seen converstandard form	form seen
20	Ad	Additional Guidance		
	M1 or SC1 may be awarded for correanswer, even if this is seen amongst			
	M1 may be seen in a trial or incorrect	tworking		
	eg 3000000 × 0.88 or 88% of 2200000			M1
	2200000 ÷ 88% not recovered			
	2200000 × 1.12 = 2464000			
	$2.464 \times 10^6 = 2.5 \times 10^6$			SC1

Q	Answer	Mark	Comments
21(a)	The number of blueberries in the tub	B1	

Q		Answer		Mark	Comments	
21(b)	2 120	6 40	8 30	B2	B1 40 or 8 in the correct point or $(k =) 120 \times 2$ or $(k =) 24$	
	Additional Guidance					
	(k =) 240 (or (k =) 120	×2 may be	seen anyw	here on the page	
	240 may b	e seen emb	edded in the	formula eg	$120 = \frac{240}{2}$	B1

Q	Answer	Mark	Comments		
	The same number of 7s as even numbers	number of 7s as even M1 may be in a list or on the spinner must be at least one 7			
	5, 5, 6, 7, 7, 8	A1	any order may be in a list or on the spi may be implied	nner	
	<u>2</u> 6	A1ft	oe fraction, decimal or percentage ft M1A0 with completed spinner or six numbers		
	Ad	ditional G	Guidance		
	Ignore simplification or conversion at				
	Accept 0.33() or 33.()% for $\frac{2}{6}$				
22(a)	A list/spinner with blanks and/or using eg 5, 5, 7, 10 or 5, 6, 7, 7, 8, 9	M1			
	$\frac{2}{6}$ with no incorrect working				
	eg 5, 6, 7, 8 on spinner with 2 blanks answer $\frac{2}{6}$ (M1A1 is implied)			M1A1A1	
	5, 5, 6, 6, 7, 7 with answer $\frac{2}{6}$			M1A0A1ft	
	$5, 5, 5, 6, 7$ with answer $\frac{4}{6}$			M1A0A1ft	
	5, 6, 6, 7, 7, 9 with answer $\frac{2}{6}$			M1A0A0ft	
5, 5, 5, 5, 6 with answer $\frac{5}{6}$				M0A0A0ft	

Q	Answer	Mark	Comments	
	Valid reason B1 eg sum of probabilities is not			
	Ado	ditional G	Guidance	
	Ignore irrelevant statements alongsid	e a correc	ct statement	
	eg the sum of the probabilities is not percentages	1 and the	probabilities are not B1	
	Do not ignore incorrect statements al	ongside a	correct statement	
	eg the sum of the probabilities is 0.11	not 1	B0	
	They add up to 1.1	B1		
22(b)	They add up to 110%	They add up to 110%		
	It is 0.1 too much		B1	
	One of the probabilities is 0.1 too mu	ch	B1	
	It should be something like 0.1, 0.2, 0	0.3, 0.4	B1	
	B should be 0.4		B1	
	They don't add up correctly			
	They add up to 0.11			
	It's not a fair spinner	В0		

Q	Answer	Mark	Comments	
	C (0, 6)	B1	if answer space is blank, accept (0, 6 written at <i>C</i> on the diagram	5)
00(0)	D (3, 0)	B1	if answer space is blank, accept (3, 0 written at <i>D</i> on the diagram))
23(a)	Additional Guidance			
	For each part mark the answer space unless blank			
	Allow x and y written above the coordinates but do not allow eg $(0x, 6y)$			

Q	Answer	Mark	Comments	
	5	B1		
	3	B1		
23(b)	Additional Guidance			
	Mark the answer lines only			
	Do not allow eg (0, 5)			

Q	Answer	Mark	Comments		
	$\frac{52}{200}$ or $\frac{26}{100}$ or $\frac{13}{50}$	B1	oe fraction, decimal or perce eg 0.26 or 26%	ntage	
	Valid reason involving the number of trials B1 eg it is from using the largest number flips				
	Ado	ditional G	Guidance		
	1st B1 Ignore simplification or conve	rsion atte	mpt after correct answer seen		
	eg $\frac{52}{200} = 0.28$			1st B1	
	52 out of 200 or 52 : 200			1st B0	
	Probability from incorrect working eg	$\frac{10+3}{50+100}$	$\frac{60 + 40 + 50}{0 + 150 + 200} = \frac{130}{500}$	1st B0	
	Ignore irrelevant statements alongside a correct statement				
	eg Using most flips and they could have done more				
	Do not ignore incorrect statements alongside a correct statement				
24	eg Uses all the flips but they could have used 100 flips				
	It uses all the flips				
	More spins				
	200 is the largest amount of data				
	200 is the highest number				
	200 is the total number of flips				
	200 flips gives 52 heads				
	200 is the final result				
	That is the highest number in the table				
	The highest results are more accurate				
	100 flips is easier to work out				
	He could use any of the results				
	B0B1 is possible eg Answer 27% Reason Use the one from most spir				

Q	Answer	Mark	Comments	
	A change in distance for an integer time interval or a change in distance for a non-integer time interval with the corresponding time interval	M1	integer time intervals are [88, 92] [70, 74] [52, 56] [34, 38] [16, 20] may be seen on graph	
25	their change in distance corresponding time interval	M1dep	oe eg $\frac{[88,92]}{5}$ must see their change in distance and the corresponding time interval division by 1 may be implied	
	18	A1	SC1 24	
	Additional Guidance			
	M1 may be awarded for correct work with no answer or incorrect answer, even if this is seen amongst multiple attempts			
	90 × 5			
	(1 second) Answer [16, 20] is awarded at least M2			
	18 from incorrect working cannot score A1			
	18 followed by further work eg $18 \div 5 = 3.6$			