GCSE
MATHEMATICS
8300/3F

Foundation Tier

Paper 3 Calculator

Shadow paper based on November 2021 paper

Mark scheme

Version: 1.0

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.

Further copies of this mark scheme are available from aqa.org.uk

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.
A	Accuracy marks are awarded when following on from a correct method. It is not necessary to always see the method. This can be implied.
B	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 $\frac{1}{2}$
[a, b]	Accept values between a and b inclusive.
[a, b)	Accept values $a \leq$ 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.

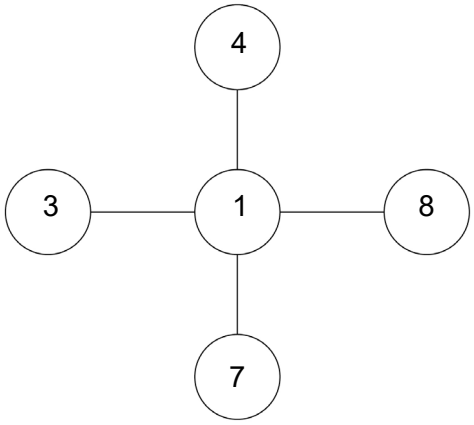
Q	Answer	Mark	Comments
1	$x = 7$	B1	

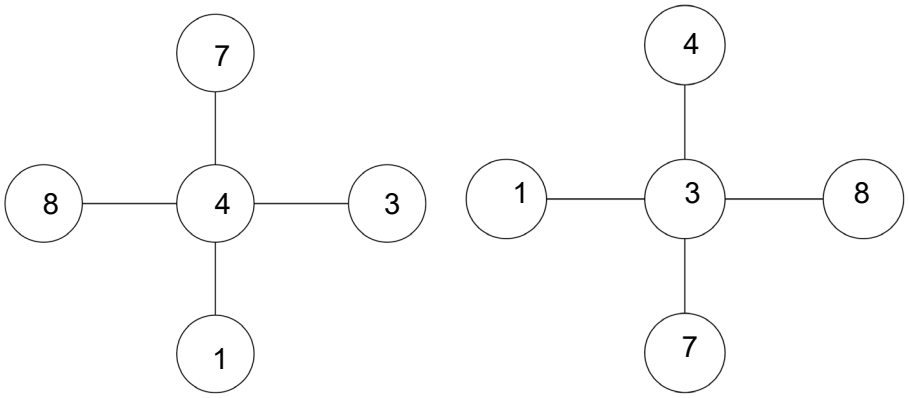
Q	Answer	Mark	Comments
2	8.62	B1	

Q	Answer	Mark	Comments
3	$\frac{x}{3}$	B1	

Q	Answer	Mark	Comments
4	one thousand	B1	

<table>
<tr><th>Q</th><th>Answer</th><th>Mark</th><th>Comments</th></tr>
<tr><td rowspan="8">5</td><td>2343.68</td><td>B1</td><td></td></tr>
<tr><td>2285.42</td><td>B1ft</td><td>ft their 2343.68 – 58.26</td></tr>
<tr><td>720.90</td><td>B1ft</td><td>ft their 2285.42 – 1564.52</td></tr>
<tr><td colspan="3">Additional Guidance</td></tr>
<tr><td colspan="2">
<table>
<tr><th>Date</th><th>Description</th><th>Credit (£)</th><th>Debit (£)</th><th>Balance (£)</th></tr>
<tr><td>01/05/2020</td><td>Starting balance</td><td></td><td></td><td>670.43</td></tr>
<tr><td>08/05/2020</td><td>Wages</td><td>1673.25</td><td></td><td>2343.68</td></tr>
<tr><td>11/05/2020</td><td>Gas bill</td><td></td><td>58.26</td><td>2285.42</td></tr>
<tr><td>18/05/2020</td><td>Rent</td><td></td><td>720.90</td><td>1564.52</td></tr>
</table>
</td><td>B1B1B1</td></tr>
<tr><td colspan="2">All three correct B1 values must be in the correct place for B1B1B1</td><td></td></tr>
<tr><td colspan="2">2343.68 and 2285.42 and 720.90 but not all of them in the correct place can only score 2 marks</td><td></td></tr>
<tr><td colspan="2">Condone £ and p on values</td><td></td></tr>
<tr><td colspan="2">Condone incorrect money notation eg 720.9</td><td>B1</td></tr>
</table>

<table>
<tr><th>Q</th><th>Answer</th><th>Mark</th><th>Comments</th></tr>
<tr><td rowspan="6">6</td><td> 
</td><td>B2</td><td>4 and 7 in a line (horizontal or vertical)
3 and 8 in a line (horizontal or vertical)

B1
the horizontal line adds to 12
or
the vertical line adds to 12</td></tr>
<tr><td colspan="3">Additional Guidance</td></tr>
<tr><td colspan="2">Must use 1, 3, 4, 7 and 8 each once and all circles must be completed</td><td></td></tr>
<tr><td colspan="2">Examples of B1
 
</td><td>B1</td></tr>
<tr><td colspan="2">Use of a repeated number</td><td>B0</td></tr>
</table>

Q	Answer	Mark	Comments
7	**Alternative method 1**		
	–50 + 75 or 25	M1	
	60 – their 25	M1dep	oe
	35	A1	
	Alternative method 2		
	60 - -50 or 110	M1	oe eg 60+50
	their 110 – 75	M1dep	
	35	A1	
	Additional Guidance		
	M1 may be awarded for correct work, with no or incorrect answer, even if this is seen amongst multiple attempts		

Q	Answer	Mark	Comments
8(a)	7 + 6 – 9 – 3 or 6 + 7 – 9 – 3 or 7 + 6 – 3 – 9 or 6 + 7 – 9 – 3	B1	

Q	Answer	Mark	Comments
8(b)	All ten correct pairs, ie 3, 7 7, 3 3, 9 9, 3 6, 7 7, 6 6, 9 9, 6 7, 9 9, 7	B2	B1 at least 5 correct pairs
	Additional Guidance		
	Condone duplication of 3, 6 and 6, 3 for B2		
	Condone duplications for B1 with at least 5 different correct pairs		

Q	Answer	Mark	Comments
8(c)	$\frac{3}{4}$ or $\frac{9}{12}$	B1ft	oe fraction, decimal or percentage correct answer or ft their table in **(b)**
	Additional Guidance		
	Answer may come from considering the four cards or from their table		
	Ignore attempts to convert a correct fraction		
	Ignore probability words		
	9 out of 12 or 9 in 12 together with a correct answer		B1
	9 out of 12 or 9 in 12 alone		B0
	9 : 12 with a correct answer		B0

Q	Answer	Mark	Comments
9	33 × 64 or 2112 or 12 × 88 or 1056	M1	oe
	$\frac{33\times64}{12\times88}=2$ or 2112 and 1056 and 2	A1	oe
	Additional Guidance		
	Ignore further work alongside a correct answer		

Q	Answer	Mark	Comments
10	**Alternative method 1**		
	17.50 ÷ 25 or 0.7(0) or 1750 ÷ 25 or 70 or 30 ÷ (2 × 25) or 30 ÷ 50 or 0.6(0) or 3000 ÷ (2 × 25) or 3000 ÷ 50 or 60	M1	oe cost of a battery in a single packet cost of a battery from special offer
	17.50 ÷ 25 – 30 ÷ (2 × 25) or their 0.7(0) – their 0.6(0) or 0.1(0) or 175 ÷ 25 – 300 ÷ (2 × 25) or their 70 – their 60	M1dep	oe their 0.7(0) and their 0.6(0) must come from correct methods their 70 and their 60 must come from correct methods
	10	A1	condone £0.10 on answer line
	Alternative method 2		
	2 × 17.50 – 30 or 35 – 30 or 5 or 2 × 1750 – 3000 or 3500 – 3000 or 500	M1	difference in cost of two packets
	their 5 ÷ (2 × 25) or 0.1(0) or their 500 ÷ (2 × 25)	M1dep	oe 5 ÷ 50 oe 500 ÷ 50
	10	A1	condone £0.10 on answer line
	Alternative method 3		
	17.50 – 30 ÷ 2 or 17.50 – 15 or 2.50 or 1750 – 3000 ÷ 2 or 1750 – 1500 or 250	M1	difference in cost of one packet
	their 2.50 ÷ 25 or 0.1(0) or their 250 ÷ 25	M1dep	
	10	A1	condone £0.10 on answer line

Q	Answer	Mark	Comments
11(a)	Any two of F2, F3, C5, D5	B2	B1 1 correct with up to 1 incorrect or 2 correct with 2 or more incorrect no written answer, but 2 correct marked on diagram with none incorrect
	Additional Guidance		
	Only mark the diagram with no written answer		
	Ignore additional correct answers on diagram or on answer line		
	Ignore repetition of correct answers		
	Condone, eg 5C, 5,C, C,5, (5,C), (C,5) for B2 and B1		

Q	Answer	Mark	Comments
11(b)	$\frac{1}{36}$ or 0.027(…) or 0.028 or 2.7(…)% or 2.8%	B1	oe
	Additional Guidance		
	Ignore attempts to convert a correct fraction		
	Ignore probability words		
	1 out of 36 or 1 in 36 together with a correct answer		B1
	1 out of 36 or 1 in 36 alone		B0
	1 : 36 with a correct answer		B0

Q	Answer	Mark	Comments
11(c)	It is greater than the answer to part **(b)** with valid reason	B1	eg now there are 6 squares to choose from (it is) $\frac{1}{6}$ or (it is) $\frac{6}{36}$
	Additional Guidance		
	Ignore incorrect statements alongside correct statements		
	Ignore any repeated incorrect probability from part **(b)**, but a probability for part **(c)**, if shown, must be correct		
	No box ticked and 'it is greater as there are 6 squares in a row'		B1
	She is restricted to a smaller number of options		B1
	Only six squares to choose from		B1
	Fewer boxes		B1
	The lower the denominator the higher the chance		B1
	There are fewer squares to choose from		B1
	There are 6 squares in a row so it is 1 in 6		B1
	There are 6 chances to put it in row 1		B1
	There are 5 other boxes she can put it in		B1
	(It's now a) 1 in 6 (chance)		B1
	There are more squares in a row		B0
	There are 5 more squares in row 1 she can put the cross		B0
	She's more likely to put it in row 1		B0
	There's a greater chance for A1		B0
	Because there are six squares in a row, so it's (incorrect probability)		B0
	There are only 6 corner squares to choose from in row 1 so it's 1:6		B0
	There are 6 chances to put it in row 1 so it is 1 in 6		B0
	Because it's a corner square		B0

Q	Answer	Mark	Comments
12	2 (cm) and 8 (cm) seen or [3.54, 4.56] or 12 ÷ [1.8, 2.2] or [6.67, 5.45] or [1.8, 2.2] ÷ 12 or [0.15, 0.18]	M1	each ± 2 mm implied by whale divided into four sections or $\frac{1}{4}$ of the whale oe
	[2.6, 3.4]	A1	working for M1 must be seen SC1 [2.6, 3.4] with no or insufficient working
	Additional Guidance		
	2:8 and 3:12 on answer line		M1A0

Q	Answer	Mark	Comments
13(a)	0.5 × 3.8 × 7.4	M1	oe eg 1.9 × 7.4 or 3.8 × 3.7
	14.06 or 14.1	A1	
	Additional Guidance		
	Accept 14 with M1 awarded		M1A1

Q	Answer	Mark	Comments
13(b)	$\pi \times 2 \times 13.6$	M1	oe accept [3.14, 3.142] for π
	[85.4, 85.5] or 27.2π	A1	oe
	Additional Guidance		
	Accept $27.2 \times \pi$ or $\pi \times 27.2$		M1A1
	Condone π 27.2		M1A1

<table>
<tr><th>Q</th><th>Answer</th><th>Mark</th><th>Comments</th></tr>
<tr><td rowspan="6">14(a)</td><td>81 000</td><td>B4</td><td>B3
60 × 60 × 6 ÷ 12 × 45 oe
B2
60 × 60 × 6 ÷ 12 oe or 1800
or 60 × 60 × 6 × 45 oe or 972 000
or 60 × 60 ÷ 12 × 45 oe or 13 500
or 60 × 6 ÷ 12 × 45 oe or 1350
B1
60 × 60 × 6 oe or 21 600
or 60 × 60 ÷ 12 oe or 300
or 60 × 60 × 45 oe or 162 000
or 60 × 6 ÷ 12 oe or 30
or 60 × 6 × 45 oe or 16 200
or 60 ÷ 12 × 45 oe or 225
or 6 ÷ 12 × 45 oe or 30</td></tr>
<tr><td colspan="3">Additional Guidance</td></tr>
<tr><td colspan="2">B3, B2 and B1 may be awarded for correct work, with no or incorrect answer, even if this is seen amongst multiple attempts</td><td></td></tr>
<tr><td colspan="2">Condone additional incorrect operations for B3, B2 and B1
eg1 12 × 60 × 60 × 6 ÷ 12 × 45 (× 12 is an incorrect operation)
eg2 60 × 60 × 6 ÷ 12 × 45 = 81 000 and 252 000 × 12 = 972 000
eg3 60 × 60 ÷ 12 = 300 and 300 × 480 = 144 000 and 144 000 × 45 indicates 60 × 60 ÷ 12 × 45 (× 480 includes an additional incorrect operation of × 60)
eg4 45 × 12 = 540 and 540 × 60 × 6 indicates 45 × 60 × 6</td><td>B3
B3
B3
B1</td></tr>
<tr><td colspan="2">The operations may be in any order and may be fragmented
eg 6 ÷ 12 = 0.5 and 2 × 45</td><td>B1</td></tr>
<tr><td colspan="2">An incorrect intermediate answer may be part of a correct set of operations
eg 60 × 6 = 3600 and 3600 ÷ 12 = 300 and 1200 × 45</td><td>B2</td></tr>
</table>

Q	Answer	Mark	Comments
14(b)	750 ÷ 12	M1	oe
	62.5	A1	oe
	Additional Guidance		
	Accept 62 or 63 with M1 seen		M1A1
	Ignore truncation or incorrect rounding after correct answer seen		M1A1

Q	Answer	Mark	Comments
15(a)	x | –2 | 2 | 3 y | 1 | 1 | 6	B1	

Q	Answer	Mark	Comments
15(b)	Plots at least four points correctly	M1	ft their points from part **(a)** $\pm \frac{1}{2}$ small square
	Correct graph drawn through the seven correct points	A1	$\pm \frac{1}{2}$ small square smooth quadratic curve
	Additional Guidance		
	Correct graph drawn without plotting the correct points		M1A1

Q	Answer	Mark	Comments
16(a)	All the points within 40 km of A	B1	

Q	Answer	Mark	Comments
16(b)	Correct triangle drawn where angle *QPR* is [36, 40]° and *PR* is [8.4, 8.8] cm	B2	B1 Angle *QPR* is [36, 40]° or *PR* is [8.4, 8.8] cm or Angle *PQR* is [36, 40]° and *QR* is [8.4, 8.8] cm
	Additional Guidance		
	Ignore attempts to label *R*		
	PR drawn correctly, but not connected to *Q*		B1

Q	Answer	Mark	Comments
17	$12x^2 - 42x$	B2	B1 $12x^2$ or $42x$ seen
	Additional Guidance		
	Condone an attempt to solve an equation after $12x^2 - 42x$ seen		B2
	Condone an attempt to solve an equation after $12x^2$ or $42x$ seen		B1
	Do not ignore further incorrect working for B2 eg $12x^2 - 42x$ followed by $54x$ eg $12x^2 - 42x$ followed by $-30x$		B1

Q	Answer	Mark	Comments
18(a)	Negative	B1	ignore descriptive words eg strong
	Additional Guidance		
	Description of relationship only eg as the motorbike gets older the value goes down	B0	

Q	Answer	Mark	Comments
18(b)	15 000	B1	
	Additional Guidance		
	(6, 15 000)	B0	

Q	Answer	Mark	Comments
18(c)	[18 500, 19 500]	B1	

Q	Answer	Mark	Comments
18(d)	2017	B2	B1 horizontal line at 12 000 $\pm\frac{1}{2}$ small square or [3.8, 4.2] implied by mark in correct place on line or horizontal axis
	Additional Guidance		
	2017 and 4 on answer line	B2	

Q	Answer	Mark	Comments
19	$5a + b + 4a + 8b + 2a + 3b$ or $2(5a + 2b) + 2(a + 4b)$	M1	oe
	$11a + 12b$ or $12a + 12b$	A1	oe
	$11a + 12b$ and $12a + 12b$ and rectangle	A1	oe with no further incorrect working
	Additional Guidance		
	Condone $23ab$ after $11a + 12b$ and/or $24ab$ after $12a + 12b$ for first A mark only		M1A1A0
	$12a$ and $11b$ or $12a$ and $12b$ implies M1		M1A0

Q	Answer	Mark	Comments
20	–33, –26, –19, –12, –5 as the first five terms or 7 × 6 – 40 or 42 – 40 or 2 as the first positive term or 5.7(1)	M1	oe
	6	A1	
	Additional Guidance		
	$7n$ on answer line with 6 in working		M1A0
	n = 2 without correct working for M1		M0
	5.7(1)n on answer line with no correct M1 values		M0
	$7n$ – 40 > 0 with no correct M1 values		M0

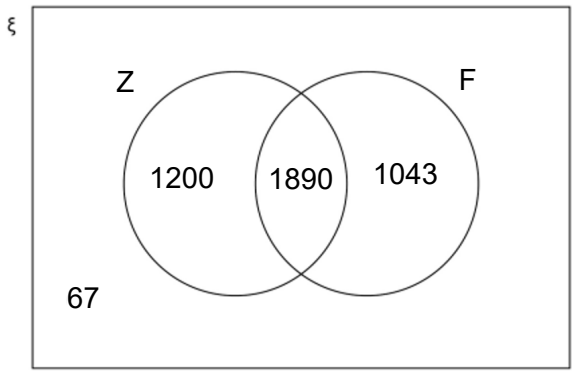
Q	Answer	Mark	Comments
21	diameter	B1	

Q	Answer	Mark	Comments
22	57 750	B1	

Q	Answer	Mark	Comments
23	312 ÷ (3.8 + 1) or 312 ÷ 4.8 or 65 or $\frac{3.8}{(3.8+1)}$ or $\frac{3.8}{4.8}$ or 0.79(…) or 3.8 – 1 or 2.8	M1	oe
	their 65 × 3.8 or 312 – their 65 or 247 or 312 × their 0.79(…) or their 65 × (3.8 – 1) or their 65 × their 2.8 or $\frac{\text{their } 2.8}{3.8+1}$ or 0.58(…)	M1dep	oe
	182	A1	
	Additional Guidance		
	247 and 65		M1M1
	312 ÷ 3.8		M0

Q	Answer	Mark	Comments
24	**Alternative method 1**		
	$\frac{48}{64} = 0.75$ and $\frac{60}{80} = 0.75$ or $\frac{60}{48} = 1.25\ldots$ and $\frac{80}{64} = 1.25$ or $\frac{48}{60} = 0.8$ and $\frac{64}{80} = 0.8$ or $\frac{64}{48} = 1.33\ldots$ and $\frac{80}{60} = 1.33\ldots$	B1	oe decimal values must be the same
	Alternative method 2		
	Correct calculation using three lengths to obtain the fourth Eg $48 \times \frac{80}{64} = 60$	B1	oe calculation including all four values
	Additional Guidance		
	Calculations must be shown		
	$\frac{48}{60} = \frac{64}{80}$ and $48 \times 80 = 64 \times 60$ and $3840 = 3840$		B1

Q	Answer	Mark	Comments
25	4	B1	

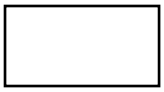
Q	Answer	Mark	Comments
26	4200 × 0.45 or 1890	M1	oe implied by 51 975
	4200 × $\frac{2}{7}$ or 1200	M1	oe implied by 21 600
	4200 – their 1680 – their 1200 – 67 or 1043	M1	oe implied by 17 731
	their 1890 × 27.5 + their 1200 × 18 + their 1043 × 17 or 51 975 + 21 600 + 17 731	M1	
	91 306	A1	
	Additional Guidance		
	Method marks may be awarded for correct work seen on Venn diagram or in working, with no or incorrect answer, even if this is seen amongst multiple attempts		
	For the 4th method mark, incorrectly placed values from their Venn diagram may be used or values connected to the correct category eg if zoo only and fair only values transposed on the Venn diagram accept their 1890 × 27.5 + their 1200 × 18 + their 1043 × 17  		

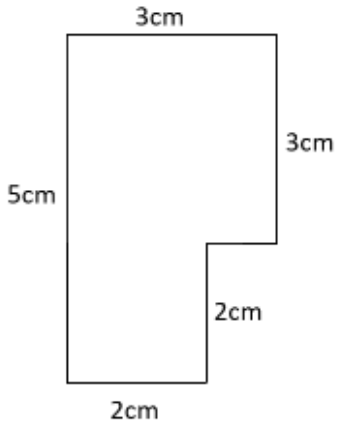
Q	Answer	Mark	Comments
27	**Alternative method 1**		
	258 × 0.45 or 116.1	M1	
	their 116.1 ÷ 6.25	M1	their 116.1 must come from a division or multiplication using 258 and 0.45 only
	18.576 or 18.58 or 18.6	A1	SC1 725.625 or 725.63 or 725.6 or 91.73
	Alternative method 2		
	258 ÷ 6.25 or 41.28	M1	
	their 41.28 × 0.45	M1	their 41.28 must come from a division or multiplication using 198 and 6.25 only
	18.576 or 18.58 or 18.6	A1	SC1 725.625 or 725.63 or 725.6 or 91.73
	Alternative method 3		
	0.45 ÷ 6.25 or 0.072	M1	
	258 × their 0.072	M1dep	
	18.576 or 18.58 or 18.6	A1	SC1 725.625 or 725.63 or 725.6 or 91.73
	Alternative method 4		
	6.25 ÷ 0.45 or $13.\dot{8}$ or 13.8(…) or 13.9	M1	
	258 ÷ their $13.\dot{8}$	M1dep	
	18.576 or 18.58 or 18.6	A1	SC1 725.625 or 725.63 or 725.6 or 91.73

Additional guidance for this question is on the next page

27 cont	**Additional Guidance**	
	258 × 0.45 ÷ 6.25 oe	M1M1
	258 × 0.45 × 6.25 (which gives 725.625)	M1M0
	258 ÷ 0.45 ÷ 6.25 (which gives 91.73)	M0M1
	258 ÷ 0.45 × 6.25 (which gives 3583.3)	M0M0
	Do not allow 6.25^2 for 6.25 eg 258 ÷ 6.25 ÷ 6.25	M0
	Ignore rounding or truncation after correct answer seen	

Q	Answer	Mark	Comments
28	8 × 5 – (3 + 7 + 12) or 40 – 22 or 18	M1	implied by two numbers with a total of 18 eg 8 and 10
	2 or 13	A1	Ie a number that could give a range of 10. Ignore other numbers that would alter the range eg 2 with 16
	5 and 13	B1	
	Additional Guidance		
	5 and 13 is the only fully correct answer		M1A1B1
	2,16		M1A1B0

Q	Answer	Mark	Comments
29(a)	Rectangle with horizontal sides 5 cm and vertical sides 2 cm	B1	accept internal vertical line 2 cm from the left, but no other internal lines
	Additional Guidance		
	 or  with dimensions 5 cm and 2 cm		B1
	Do not accept other internal lines		
	Mark intention		

Q	Answer	Mark	Comments
29(b)		B1	any orientation
	Additional Guidance		
	Do not accept internal lines		
	Do not accept a reflection		
	Mark intention		

Q	Answer	Mark	Comments
30	31 or 37	B1	implied by correct answer
	$\frac{31}{121}$ (× 100) or $\frac{37}{121}$ (× 100) or $\frac{\text{their number}}{121}$ (× 100) or their number = $\frac{121x}{100}$	M1	oe their number can be any integer value
	25.6(…) or 30.6 or 30.58 or 30.579 or 30.5785(…) or correct evaluation of their number as a percentage of 121	A1ft	ft B0M1 oe their number must be an integer [30, 40] or any prime number
	Additional Guidance		
	25.6(…) or 30.6 (or 30.58 or 30.579 or 30.5785(…))		B1M1A1
	25.6(…) and 30.6 (or 30.58 or 30.579 or 30.5785(…))		B1M1A1
	31 or 37 must be clearly indicated as their prime number		
	Any integer [30, 40] used can score B0M1A1ft eg 25 ÷ 121 × 100 with answer 20.7		B0M1A1ft
	Any prime number used can score B0M1A1ft eg 7 ÷ 121 × 100 with answer 5.8 or 5.79 or 5.785(…)		B0M1A1ft

Q	Answer	Mark	Comments
31	360 ÷ 20 or 18 or (20 – 2) × 180 or 3240	M1	oe may be seen on diagram
	162	A1	