

Pearson Edexcel
Level 1/Level 2 GCSE (9-1)
Mathematics (1MA1)

May/June 2022 Exemplar
1MA1-2F Paper 2 (Calculator)
Foundation Tier

Senior Examiner's feedback on student responses

Contents

About this booklet	2
How to use this booklet.....	3
General Examiner Feedback.....	4
Question 10	5
Question 11	10
Question 12.....	16
Question 17	20
Question 18	26
Question 19	31
Question 24.....	37
Question 25	45
Question 27	50

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About this booklet

This document has been produced to support mathematics teachers delivering the new GCSE (9-1) Mathematics specification.

This document looks at a selection of questions from the June 2022 GCSE (9 - 1) Mathematics Foundation tier examination. It shows real student responses to selected questions and how the examining team follow the mark schemes to demonstrate how the students would be awarded marks on these questions.

Our examining team have selected student responses to Foundation tier questions and common questions that are in both the Higher tier and Foundation tier from the June 2022 examination.

Following each question, you will find the mark scheme for that question, examiner comment, data on how the question performed and then a range of student responses with accompanying examiner comments on how the mark scheme has been applied and the marks awarded, and on common errors for this sort of question.

How to use this booklet

Skip to Main Contents

Question: 7 8 11 16 18 20 21 22 25
27 28 29

Question 7

? Question ✓ Mark Scheme ☰ Examiner Comments

📊 Performance 📄 Response A 📄 Response B 📄 Response C

? Question 7 - Question

7 Simon buys some candles.
Each candle costs £2

Simon pays with a £20 note.
He gets £6 change.

Work out the number of candles Simon buys.

(Total for Question 7 is 3 marks)

✓ Question 7 - Mark Scheme

Question	Answer	Mark	Mark scheme	Additional guidance
7	7	P1	for $20 - 6 (= 14)$ or $20 \div 2 (=10)$ and $6 \div 2 (=3)$	
		P1	for " $14" \div 2 (= 7)$ or " $10" - "3" (= 7)$	
		A1	cao	

☰ Question 7 - Examiner Comments

Generally well answered, some with minimal working shown. Careless arithmetic was a major reason for some students not gaining full marks in this question. $20 - 6 = 24$ or $20 - 6 = 12$ were the most common errors made but by dividing correctly by 2 to get 12 or 6, 2 out of the 3 marks available were possible. A common approach was to list costs of candles in multiples of 2. However, it was not uncommon for some multiples to be omitted, thus affecting the final number of candles bought. Some weaker students got no further than working out the number of candles that could be bought for £20. To gain any credit $\pounds 6 \div 2$ also needed to be seen. Giving an answer of 14 on the answer line was also common following correct calculations, with 7 candles often being an embedded answer.

📊 Question 7 - Performance

Mean score	Max score	Mean %	Edexcel averages: mean scored by candidates achieving grade:						
			ALL	5	4	3	2	1	U
2.70	3	90	2.70	2.97	2.93	2.84	2.64	2.18	1.47

6

Navigate to the Contents page

Navigate to a question

Navigate to a specific part of this question

Skip to Main Contents

Question: 7 8 11 16 18 20 21 22 25
27 28 29

Q7

? Question

✓ Mark Scheme

☰ Examiner Comments

📊 Performance

📄 Response A

📄 Response B

📄 Response C



General Examiner Feedback

The paper was accessible to all students with a good amount of working shown over most of the paper. Some questions, towards the end of the paper, were not as well answered by students but this was due to the differentiation and ramping of the questions.

This is a paper that requires the use of a calculator and students are expected to have access to and use a calculator. There is evidence that some students continue to try to use written methods even when they have a calculator and this can take longer and also lead to inaccurate answers.

Additionally, a pair of compasses was required for this paper, which some students did not have access to. It is essential that students have a full set of equipment when sitting a GCSE mathematics paper.

Students should carefully read both the numbers used in the questions and their own hand writing, inaccurate reading leads to inaccurate answers and will mean students lose marks unnecessarily.

- Question: **10** **11** **12** **17** **18** **19** **24** **25** **27**

Question 10

 Question
 Mark Scheme
 Examiner Comments

 Performance
 Response A
 Response B
 Response C

Question 10 - Question

10 Sonia wants to book a holiday.
 The holiday will cost £1428

Sonia will pay a deposit of £150
 She will then pay the rest of the cost in 6 equal monthly payments.

How much is each monthly payment?

£.....

(Total for Question 10 is 3 marks)

Question 10 - Mark Scheme

Question	Answer	Mark	Mark scheme	Additional guidance
10	213	P1	for beginning to work with costs eg $1428 - 150 (= 1278)$ or $1428 \div 6 (= 238)$ and $150 \div 6 (= 25)$	
		P1	for complete process to find monthly payment eg “1278” $\div 6$ or “238” – “25”	
		A1	cao	

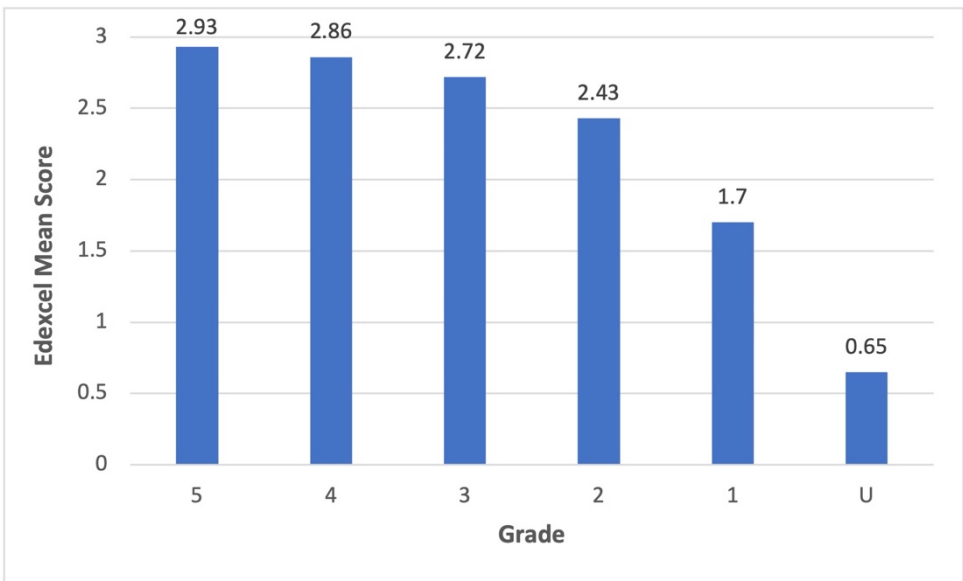
- Question: **10** **11** **12** **17** **18** **19** **24** **25** **27**

 **Question 10 - Examiner Comments**


This was generally well answered and the modal score was three marks. When full marks was not scored this was often due to arithmetic errors; it was disappointing to see so many arithmetic errors, particularly in the subtraction of £150 from £1428 when a calculator could be used. Students either did not have a calculator or chose not to use it. Centres should encourage students to use a calculator on the calculator papers. A few students decided to add together the £150 and the £1428 before dividing by six. Unfortunately, this was an incorrect process and gained no marks. Some students left two methods to be marked, in this case both will be marked and the lower of the two marks awarded. Students should be discouraged from this practice and make their own choice as to which method they want marking. In this question the choice was often either a fully correct answer or $1428 \div 6$ and if nothing was written on the answer line then the student scored no marks.


 **Question 10 - Performance**


Mean score	Max score	Mean %	Edexcel averages: mean scored by candidates achieving grade:						
			ALL	5	4	3	2	1	U
2.52	3	84	2.52	2.93	2.86	2.72	2.43	1.70	0.65





Q10











A

B

C

- Question: 10 11 12 17 18 19 24 25 27

 **Question 10 - Response A**

10 Sonia wants to book a holiday.
 The holiday will cost £1428
 Sonia will pay a deposit of £150
 She will then pay the rest of the cost in 6 equal monthly payments.
 How much is each monthly payment?

$$\begin{array}{r} \pounds 1428 \\ - \pounds 150 \\ \hline \pounds 1278 \end{array}$$

$$\pounds 1278 \div 6 = \pounds 213$$

$$\pounds 213 \times 6 = \pounds 1278$$


1 month = £213 //


£ 213


(Total for Question 10 is 3 marks)


3 / 3


Q10











A

B

C

P1 for beginning to work with costs, here $1428 - 150$. Note the answer is correct but the process is enough to award the mark.

P1 for the complete process seen, here we see $1428 \div 6$ and this is enough for the second process mark.

A1 is awarded for the final accurate answer of 213.

Note the $213 \times 6 = 1278$ is regarded as a check and does not contradict the answer given on the answer line

- Question: 10 11 12 17 18 19 24 25 27

 **Question 10 - Response B**

10 Sonia wants to book a holiday.
 The holiday will cost £1428
 Sonia will pay a deposit of £150
 She will then pay the rest of the cost in 6 equal monthly payments.
 How much is each monthly payment?

~~$$\begin{array}{r} 1428 \\ - 150 \\ \hline 1278 \end{array}$$~~

$$1428 - 150 = 1278$$

$$1278 \div 30 = 42.6$$


$$= 43$$


£ 43
 (Total for Question 10 is 3 marks)


1 / 3


P1 for beginning to work with costs, subtraction of the deposit in this case
P0 division by 30 is incorrect; it should have been by 6.
A0 the answer is incorrect.


Q10











A

B

C

- Question: 10 11 12 17 18 19 24 25 27

 **Question 10 - Response C**

10 Sonia wants to book a holiday.
 The holiday will cost £1428
 Sonia will pay a deposit of £150
 She will then pay the rest of the cost in 6 equal monthly payments.
 How much is each monthly payment?

~~1428 ÷ 6 = £238~~
 1428 + 150 = £1578 total
 1428 ÷ 6 = £238 each month

£ 238

(Total for Question 10 is 3 marks)

0 / 3

Q10













 A
 B
 C

P0 the deposit is added on and so no mark can be awarded.
P0 the use of speech marks in the mark scheme means that the first process must be correct for the second mark to be awarded; it is not in this case.
A0 incorrect answer.

- Question: **10** **11** **12** **17** **18** **19** **24** **25** **27**

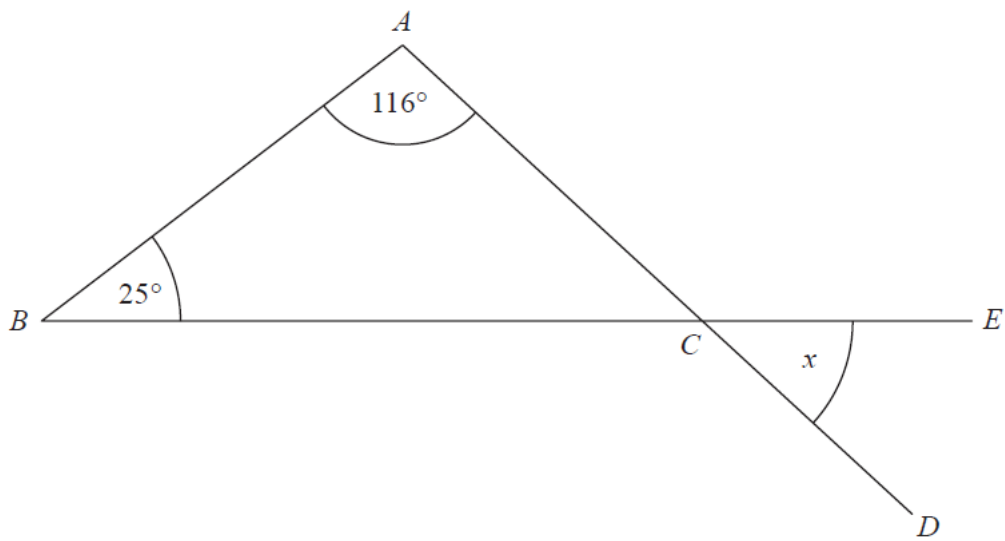
Question 11

 Question  Mark Scheme  Examiner Comments

 Performance  Response A  Response B  Response C

 **Question 11 - Question**

11 The diagram shows a triangle ABC .



ACD and BCE are straight lines.

Work out the size of the angle marked x .
Give a reason for each stage of your working.

.....°
(Total for Question 11 is 3 marks)

- Question: 10 11 12 17 18 19 24 25 27


 **Question 11 - Mark Scheme**


Question	Answer	Mark	Mark scheme	Additional guidance
11	39 with reasoning	M1	for a method to find angle ACB eg $180 - 116 - 25$	
		A1	for 39	$ACB = 39$ or $x = 39$ or $C = 39$ or just 39 is acceptable for this accuracy mark
		C1	for $x = 39$ with reasoning eg <u>Angles in a triangle</u> add up to 180 and <u>Vertically opposite angles</u> are equal or <u>Vertically opposite angles</u> are equal or <u>Angles on a straight line</u> add up to 180 OR The <u>exterior angle</u> of a triangle is equal to the sum of the <u>interior opposite angles</u> and <u>Angles</u> on a straight <u>line</u> add up to 180	Angle may be shown on diagram if no ambiguity or contradiction The key words underlined must be present. There should be no incorrect reasons given. All reasons given should be used, not just a list of angle facts.


 **Question 11 - Examiner Comments**


The modal mark for this question was two marks for calculating the angle as 39 degrees. However, many students lost the final communication mark for failing to give the correct geometric reason. A few students lost the communication mark by contradicting their working. For example, ‘Angles in a triangle add up to 360’. Students should be encouraged to give their geometric reasons as they work through the question and centres should emphasise the difference between giving reasons and showing working.


Q11











A

B

C

Question:

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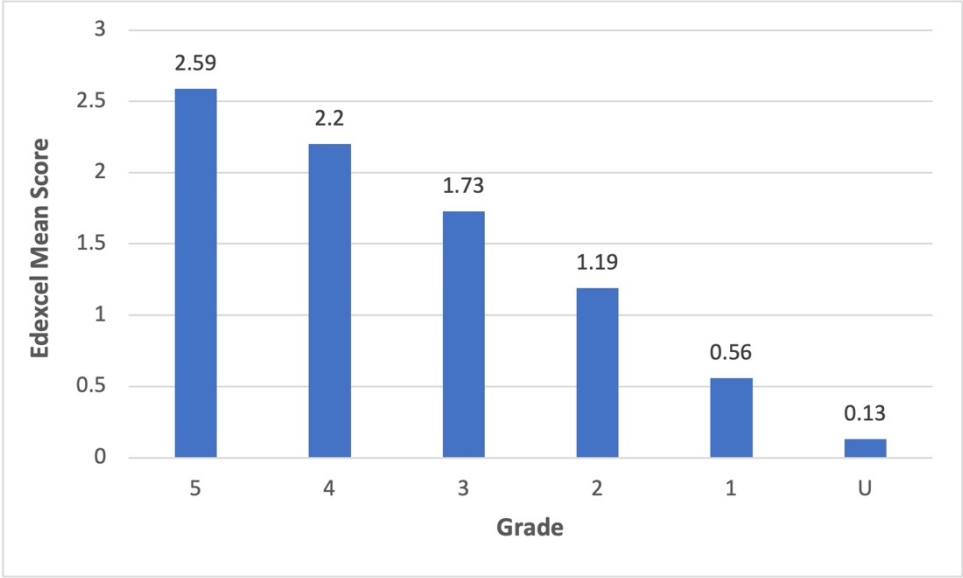
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 **Question 11 - Performance**


Mean score	Max score	Mean %	Edexcel averages: mean scored by candidates achieving grade:						
			ALL	5	4	3	2	1	U
1.65	3	55	1.65	2.59	2.20	1.73	1.19	0.56	0.13





Q11











A

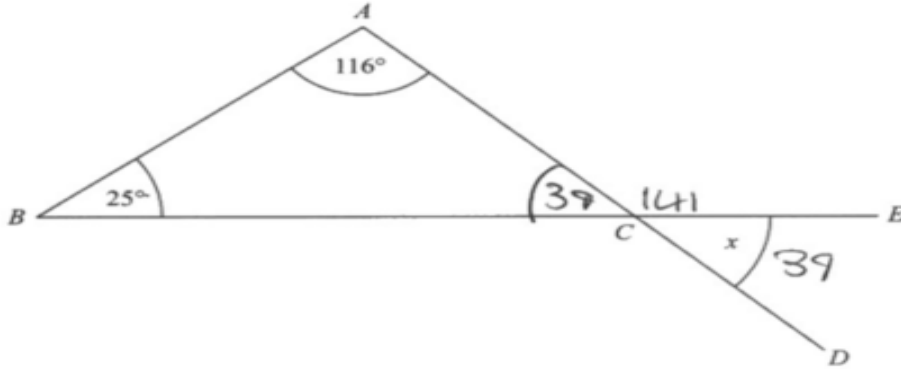
B

C

- Question: 10 11 12 17 18 19 24 25 27

Question 11 - Response A

11 The diagram shows a triangle ABC .



ACD and BCE are straight lines.

Work out the size of the angle marked x .
Give a reason for each stage of your working.

~~141~~ ~~141~~ ~~39~~

$25 + 116 = 141$ $180 - 139 = 141$
 $180 - 141 = 39$ Angle on a straight line
 Angles in a triangle add to 180 add to 180

39 °

3 / 3

M1 for the complete process seen

A1 for 39

C1 for angles and triangle in a sensible sentence for a reason AND angle and line in a sensible sentence detailing a reason. The reasons can be in either order and if a reason is used repeatedly it does only need to be stated the once.

Q11

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Bar chart icon

✍️

A B C

Question:

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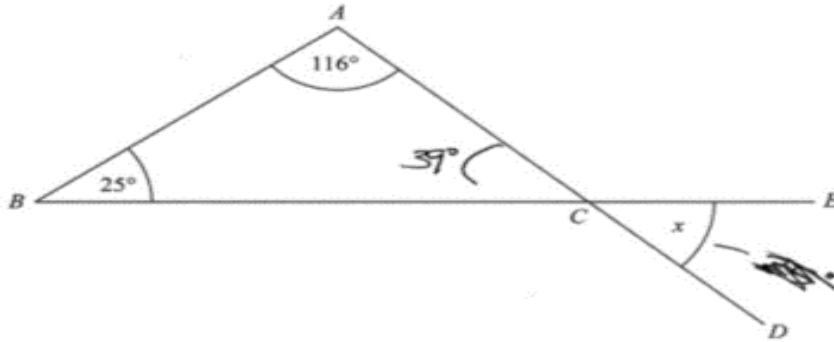
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Question 11 - Response B

11 The diagram shows a triangle ABC .



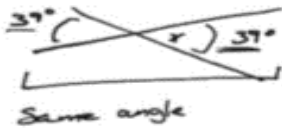
ACD and BCE are straight lines.

Work out the size of the angle marked x .
Give a reason for each stage of your working.

$BAC = 116^\circ$
 ~~$BAC = 116^\circ$~~
 $180^\circ - 141^\circ = 39^\circ \rightarrow ACB = 39^\circ$

Triangle = 180°

$ECD = 39^\circ$



39 °

2 / 3

Q11

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✓

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Bar chart icon

✍️

A

B

C

M1 for a complete process, 180 – 141

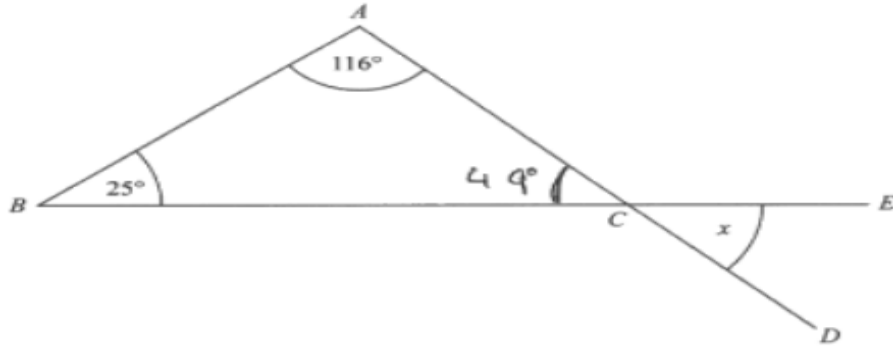
A1 for the correct answer of 39

C0 as full reasons using the words underlined in the mark scheme are not seen.
The underlined words on the mark scheme are required for the reasoning.

- Question: 10 11 12 17 18 19 24 25 27

Question 11 - Response C

The diagram shows a triangle ABC .



ACD and BCE are straight lines.

Work out the size of the angle marked x .
Give a reason for each stage of your working.

$$+ \frac{116}{25} \\ \hline 131$$

$$- \frac{180}{131} \\ \hline 49$$

----- 49 -----

1 / 3

Q11

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Bar chart

✍️

A

B

C

M1 for a method to find the angle.

116+ 25 is shown, there is an arithmetic error but this figure is then subtracted from 180 and so the method mark can be awarded.

A0 the arithmetic error leads to a loss of accuracy and so no mark is awarded.

C0 There are no reasons so this mark cannot even be considered.

- Question: **10** **11** **12** **17** **18** **19** **24** **25** **27**

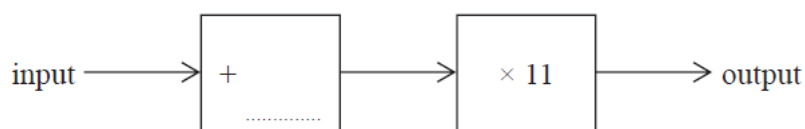
Question 12

Question
Mark Scheme
Examiner Comments

Performance
Response A
Response B
Response C

Question 12 - Question

12 Here is a different number machine.
The number machine is not complete.



When the input is 8, the output is 154

(b) Complete the number machine.

(2)

Question 12 - Mark Scheme

Question	Answer	Mark	Mark scheme	Additional guidance
12 (a)	9	B1	cao	
(b)	6	M1	starts to find input using inverse operations eg $154 \div 11 (= 14)$ or indicates $\div 11$ and $- 8$ or derivation of equation eg $(8 + n) \times 11 = 154$ or starting to solve for unknown eg $154 - 8 \times 11 (= 66)$	$\div 11$ and -8 could be seen in a flow diagram. Evidence could be provided by algebraic statement, numerical statements or by diagram
		A1	cao	

Question:

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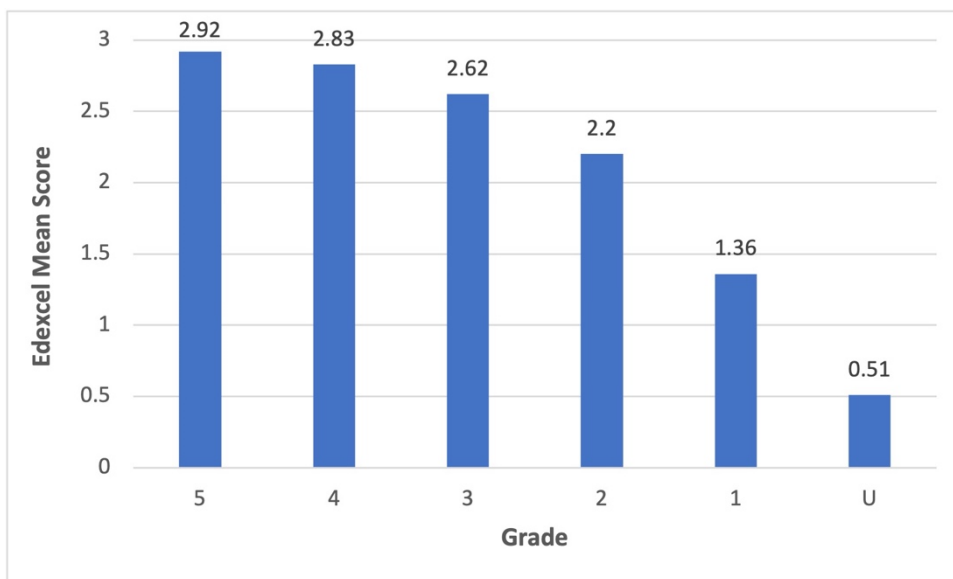
Question 12 - Examiner Comments

Students were able to use the number machine in part (a) and the vast majority of students gave the correct answer and scored the mark available.


Part (b) was generally well answered with most students achieving full marks. An answer of 6 was often given with no further working shown. Of the successful answers with working, by far the most common method seen was the use of the inverse operation working backwards from 154. Those unable to give the final answer often gained a mark for partially correct working out, usually $154 \div 11 = 14$. Some students did try to work with an unknown and 88 or $154 - 88$ was often seen but not many using this method seem to complete the process and give an answer of 6. Those students who got as far as $154 - 88$ or stating 66 were able to gain one mark. The most common incorrect answer seen was 13.27 from subtracting 8 from 154 first and then dividing by 11.

Question 12 - Performance


Mean score	Max score	Mean %	Edexcel averages: mean scored by candidates achieving grade:						
			ALL	5	4	3	2	1	U
2.39	3	80	2.39	2.92	2.83	2.62	2.20	1.36	0.51




Q12











A

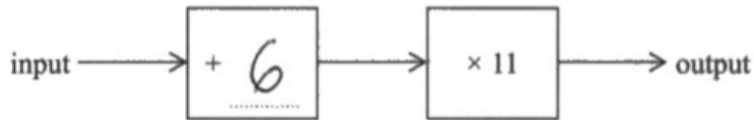
B

C

- Question: 10 11 12 17 18 19 24 25 27

 **Question 12 - Response A**

Here is a different number machine.
The number machine is not complete.



When the input is 8, the output is 154


(b) Complete the number machine.

(2)

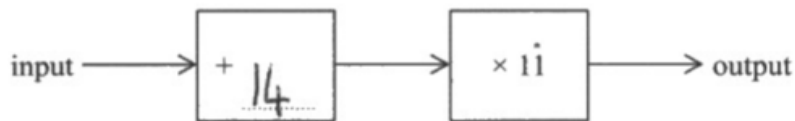
2 / 2

M1 A1 awarded for a fully correct answer.

We never award **M0 A1** and the accuracy here is enough to imply the one method mark.

 **Question 12 - Response B**

Here is a different number machine.
The number machine is not complete.



When the input is 8, the output is 154

(b) Complete the number machine.

(2)

1 / 2

M1 as 14 only as the answer can be judged as a working process


A0 the final correct answer is not present.


Q12

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A
B
C

Question:

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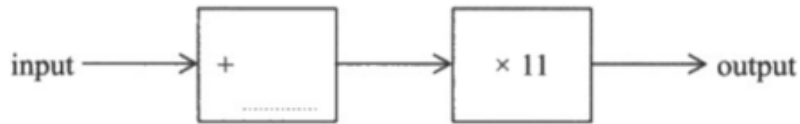
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 **Question 12 - Response C**

Here is a different number machine.
The number machine is not complete.



When the input is 8, the output is 154

(b) Complete the number machine.

Handwritten work:

$$8 + \cancel{44} \times 11 = 154$$

$$8 \times 11$$

$$88 + \underline{\quad} = 154$$


$$154 - 88 = 66 \quad (2)$$


1 / 2


M1 for starting to solve an equation for $154 - 88$ evaluated.


A0 No answer given.


Q12











A

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Question:

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Question 17

 Question

 Mark Scheme

 Examiner Comments

 Performance

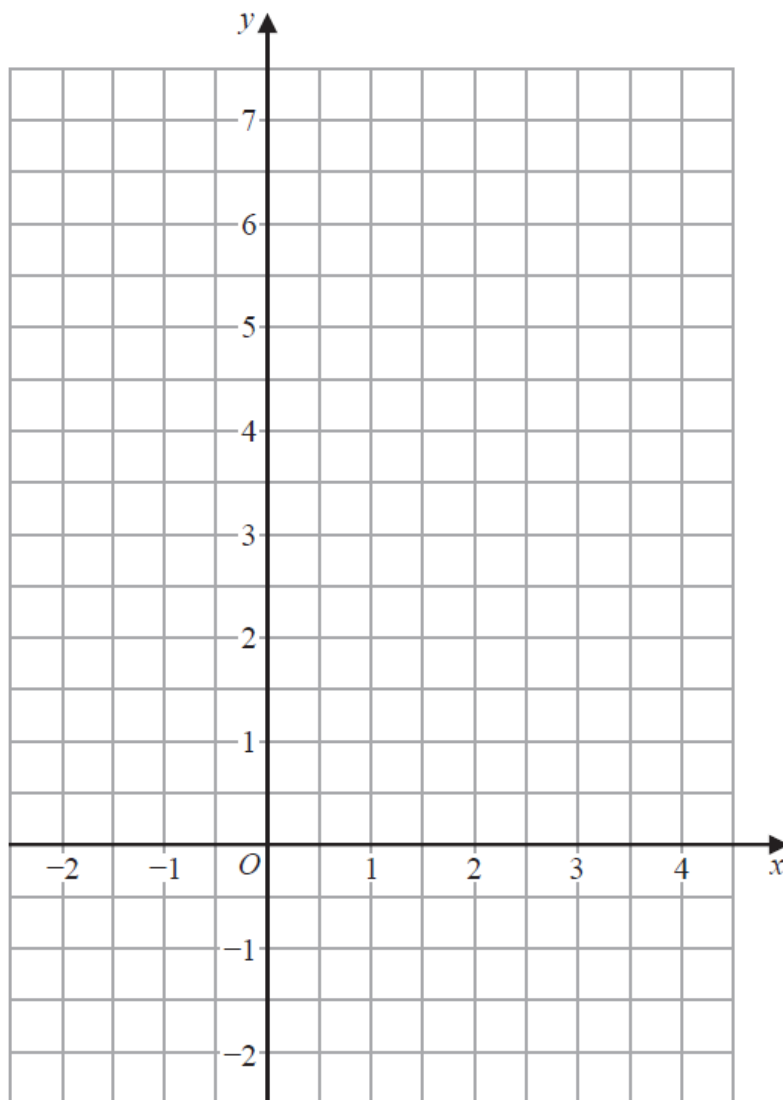
 Response A

 Response B

 Response C

Question 17 - Question

17 On the grid below, draw the graph of $y = 4 - x$ for values of x from -2 to 4




(Total for Question 17 is 3 marks)


- Question: 10 11 12 17 18 19 24 25 27


 **Question 17 - Mark Scheme**


Question	Answer	Mark	Mark scheme	Additional guidance																
17	Line Drawn	B3	for a correct line between $x = -2$ and $x = 4$	Accept freehand line drawn																
		(B2)	for a correct straight-line segment through at least 3 of $(-2, 6), (-1, 5), (0, 4), (1, 3), (2, 2), (3, 1), (4, 0)$ or for all of these points plotted but not joined or for a line drawn with a negative gradient through $(0, 4)$ and clear intention to use a gradient of -1 , eg a line through $(0, 4)$ going across 1 square and down 1 square)	Ignore any incorrect points Table of values <table border="1" style="margin-left: 20px;"> <tr> <td>x</td> <td>-2</td> <td>-1</td> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>y</td> <td>6</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>1</td> <td>0</td> </tr> </table>	x	-2	-1	0	1	2	3	4	y	6	5	4	3	2	1	0
x	-2	-1	0	1	2	3	4													
y	6	5	4	3	2	1	0													
		(B1)	for at least 2 correct points stated or plotted or a line drawn with negative gradient through $(0, 4)$ or a line with gradient -1)	Ignore any incorrect points Coordinates may be in a table or working Do not accept $y = 4$ drawn																


Q17











A

B

C

 **Question 17 - Examiner Comments**

This is a commonly asked question but on this occasion the topic was not well answered. The lack of a table to fill in seemed to confuse some students. Centres should encourage students to set up their own table of values if one is not given. Those students that did this were the most successful in scoring full marks. Even though this graph had a negative gradient many students tried to draw a line with a positive gradient going up in ones instead of down. It was also disappointing to see many students had plotted the correct points but failed to join them up with a line, hence losing the accuracy mark.

Another common error seen was to have the correct graph for the positive values of x but the incorrect values for the negative values of x . It would help students to recognise the format for the equation of a straight line and know that their graph should be both straight and have all points joined.

Question:

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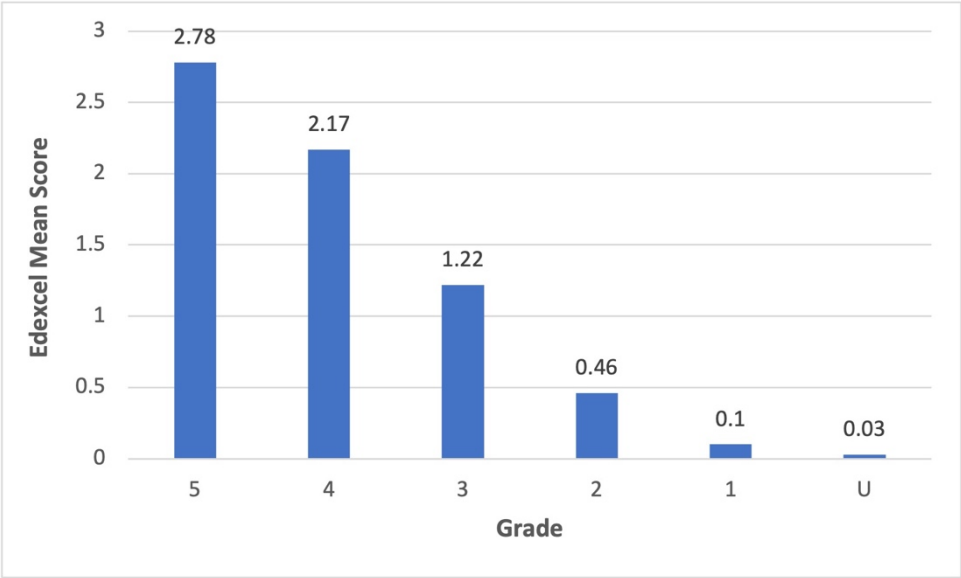
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 **Question 17 - Performance**

Mean score	Max score	Mean %	Edexcel averages: mean scored by candidates achieving grade:						
			ALL	5	4	3	2	1	U
1.33	3	44	1.33	2.78	2.17	1.22	0.46	0.10	0.03





Q17











A

B

C

Question:

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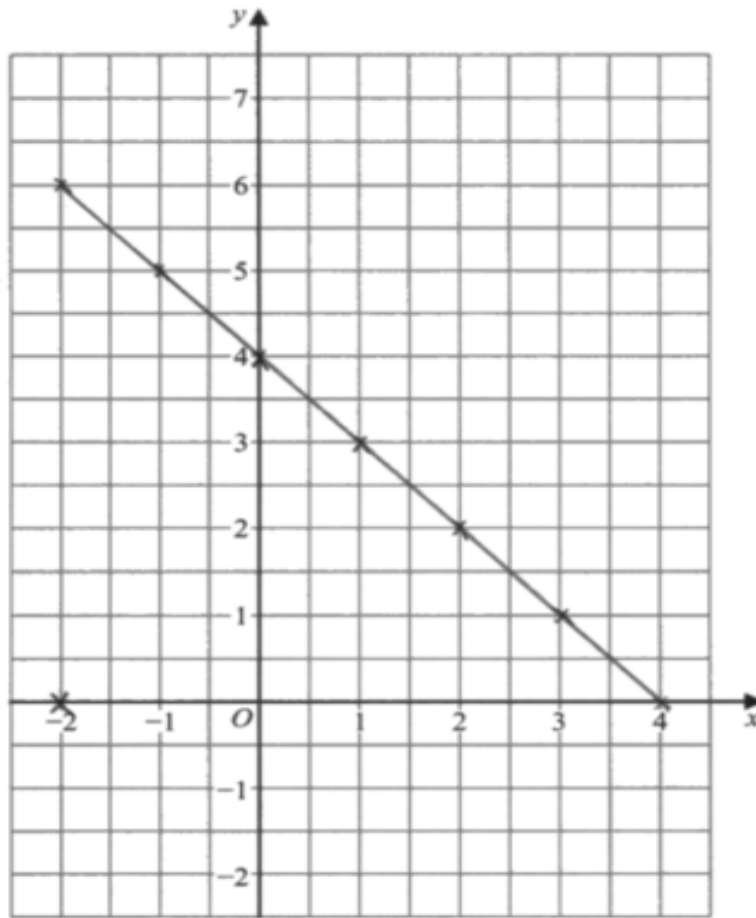
25

27



Question 17 - Response A

7 On the grid below, draw the graph of $y = 4 - x$ for values of x from -2 to 4



Q17



A

B

C

3 / 3

B3 correct line drawn.

We can ignore the extra point at $(-2, 0)$ as the choice of which point to use for $x = -2$ is made clear by the line.

No working is shown but the line is fully correct.

Question:

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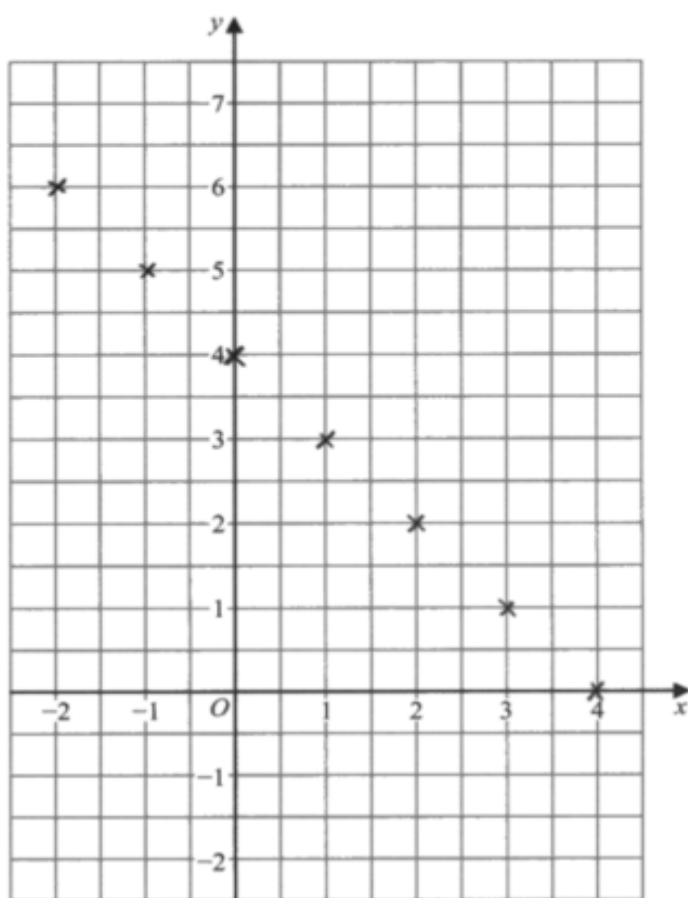
25

27

 Question 17 - Response B


On the grid below, draw the graph of $y = 4 - x$ for values of x from -2 to 4


x	-2	-1	0	1	2	3	4
y	6	5	4	3	2	1	0





2 / 3


Q17











A

B

C

B2 here the table is correct and all the points are plotted but not joined.

This is seen often on this style of questions.

It is worth noting that we do accept hand drawn lines if the intention is clear.

- Question: 10 11 12 17 18 19 24 25 27

Question 17 - Response C

17 On the grid below, draw the graph of $y = 4 - x$ for values of x from -2 to 4

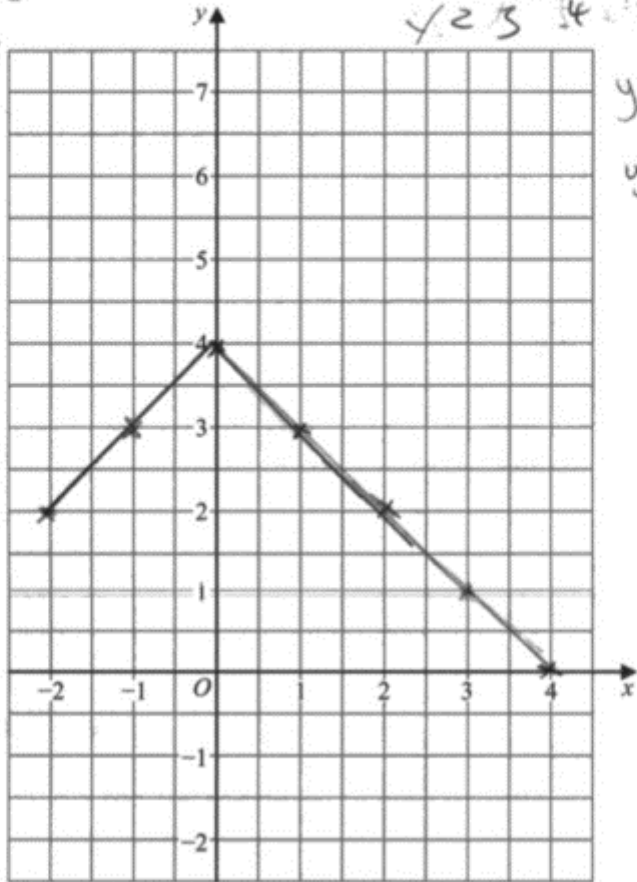
Handwritten work for the graphing task:

$y = 4 - x$

$y = 4 - 2 = 2$
 $y = 4 - 3 = 1$
 $y = 4 - 4 = 0$
 $y = 4 - 0 = 4$
 $y = 4 - 1 = 3$
 $y = 4 - 2 = 2$

x	-2	-1	0	1	2	3	4
y	2	3	4	3	2	1	0

$y = 4 - 1 = 3$
 $y = 4 - 2 = 2$
 $y = 4 - 4 = 0$



2 / 3

Q17

?

✓

≡

Bar chart icon

Wavy line icon

A

B

C

B2 for a correct straight line through at least 3 correct points, ignoring any incorrect points.
 Note this example shows how students can deal with positive values of x but not the negative ones.

- Question: 10 11 12 17 18 19 24 25 27

Question 18

 Question
 Mark Scheme
 Examiner Comments

 Performance
 Response A
 Response B
 Response C

Question 18 - Question

18 This sign was in a doctor’s waiting room.

115 appointments were missed last month.
 These missed appointments were a total of 25.3 hours.

Work out the mean length of time for each missed appointment.
 Give your answer in minutes.

..... minutes
(Total for Question 18 is 3 marks)

Question 18 - Mark Scheme

Question	Answer	Mark	Mark scheme	Additional guidance
18	13.2	P1 P1 A1	process to convert decimal time, eg $25.3 \times 60 (= 1518)$ or $0.3 \times 60 (= 18)$ OR process to work with mean, eg [time] $\div 115 (= 0.22)$ or $1 \div (115 \div [\text{time}]) (= 0.22)$ full process to work out mean time allocated for appointment, eg “1518” $\div 115$ or “0.22” $\times 60$ cao	[time] could be 25.3 or any other time that has been incorrectly changed from 25.3 hours

- Question: 10 11 12 17 18 19 24 25 27

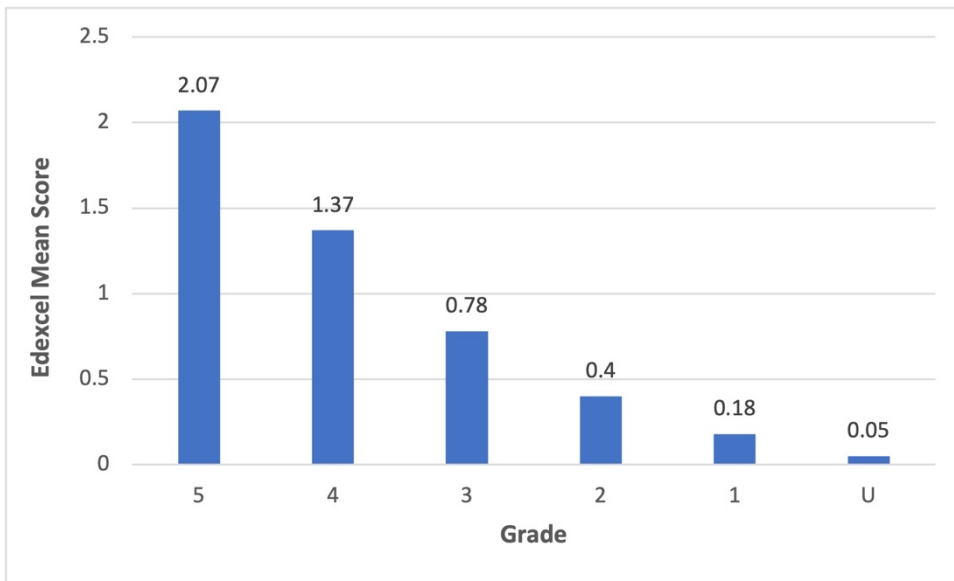
 **Question 18 - Examiner Comments**

A range of marks were awarded for this question which tested students' ability to convert between different time units and to calculate the mean. Many were able to convert 25.3 hours to minutes by multiplying by 60. Where this was unsuccessful it was often the case that students converted the 25 hours correctly but could not deal with the decimal part. Often 0.3 was incorrectly converted to 20 or 30 minutes, this meant that the mark for time conversion could not be awarded. However, students were able to gain a mark for working with the mean when they divided what they thought the time was, in minutes, by 115. Students who started with $25.3 \div 115 = 0.22$ often failed to go any further and incorrectly interpreted this as 22 minutes.


A significant number of students attempted to divide the number of appointments by the total time.


 **Question 18 - Performance**


Mean score	Max score	Mean %	Edexcel averages: mean scored by candidates achieving grade:						
			ALL	5	4	3	2	1	U
0.92	3	31	0.92	2.07	1.37	0.78	0.40	0.18	0.05





Q18











A

B

C

Question:

10

11

12

17

18

19

24

25

27

 **Question 18 - Response A**

18 This sign was in a doctor's waiting room.

115 appointments were missed last month.
These missed appointments were a total of 25.3 hours.

Work out the mean length of time for each missed appointment.
Give your answer in minutes.

$25.3 \div 115 = 0.22$
 $13.2 \times 115 = 1518$
~~13.20 x~~

1 hr = 60 mins

$60 \times 0.22 = 13.2$

~~13.20~~ minutes

3 / 3


This candidate calculates the mean first and then the time conversion.


P1 for $25.3 \div 115$, the mean


P1 for “0.22” \times 60, all calculations are correct and accurate.


A1 the correct answer is shown.


Q18











A

B

C

Question:

10

11

12

17

18

19

24

25

27

 **Question 18 - Response B**

This sign was in a doctor's waiting room.

115 appointments were missed last month.
These missed appointments were a total of 25.3 hours.

Work out the mean length of time for each missed appointment.
Give your answer in minutes.


$$25.3 \times 60 = 1518 \text{ minutes}$$


$$1518 \div 115 = 13.2$$


$$13.2 \text{ minutes}$$


2 / 3


Q18











A

B

C

P1 for the process to convert a decimal time, 25.3×60 is shown. The answer is wrong but the process is seen.


P1 for “1518” ie the answer to 25.3×60 , divided by 115, which shows the full processes required.

A0 the answer is wrong.

- Question: **10** **11** **12** **17** **18** **19** **24** **25** **27**

Question 19

 Question  Mark Scheme  Examiner Comments

 Performance  Response A  Response B  Response C

 **Question 19 - Question**

19 Nimra buys a 3 kg box of sweets for £17.60
She puts the sweets into bags to sell.
Each bag contains 150 g of sweets.
Nimra fills as many bags as possible.
She will sell each bag for the same price.
Nimra wants to make a profit of at least 35%
Assuming she sells all the bags,
what is the lowest price Nimra should charge for each bag?


£.....
(Total for Question 19 is 5 marks)


- Question: **10** **11** **12** **17** **18** **19** **24** **25** **27**


 **Question 19 - Mark Scheme**


Question	Answer	Mark	Mark scheme	Additional guidance	
19	1.19	P1	process to find number of small bags that can be filled, eg $[3\text{kg}] \div 150 (= 20)$ oe	[3kg] must be 3 and zeros only eg 300 Build up methods are allowed to imply process	
		P1	for starting a process to work with percentage for cost of box, eg $17.60 \times \frac{35}{100} (= 6.16)$ or $100 + 35 (= 135)$	works with starting cost per small bag, $17.60 \div "20"$	Cost per small bag given as £0.88 will imply P1P1
		P1	for full process to work with percentage increase, eg $17.60 \times \frac{135}{100} (= 23.76)$	begins process to work with percentage for a small bag, eg $"0.88" \times \frac{35}{100} (= 0.308)$	
		P1	full process to find selling price for small bag, eg $"23.76" \div "20" (= 1.188)$	full process to find selling price for small bag, $"0.88" \times \frac{135}{100} (= 1.188)$ oe	
		A1	cao		


Q19











A

B

C

- Question: **10** **11** **12** **17** **18** **19** **24** **25** **27**

Question 19 - Examiner Comments

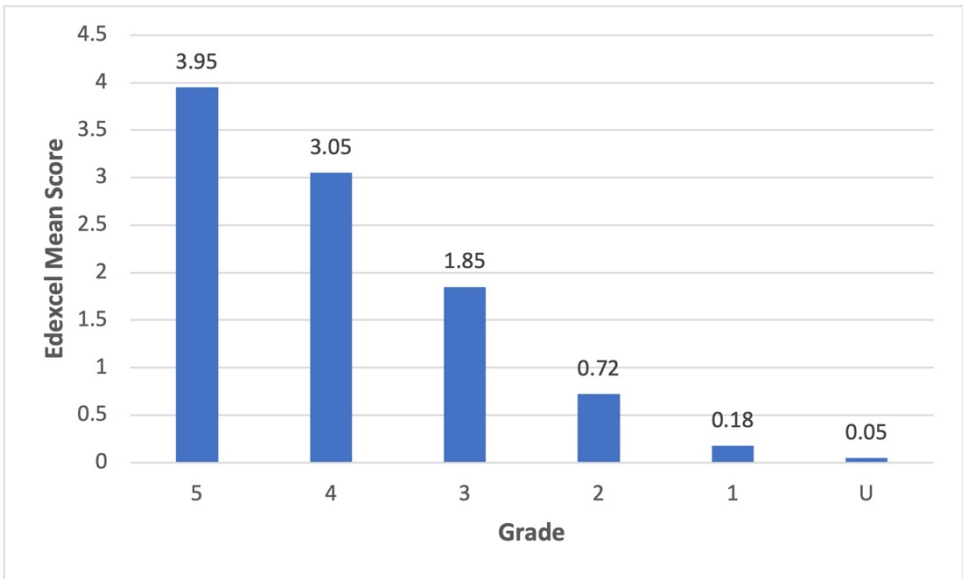
The majority of students gained marks on this question. Many gained three marks for finding the number of bags as 20 and the percentage increase as £23.76. Unfortunately, most students were unable to go onto the next stage of $23.76 \div 20 = 1.188$ and then round to £1.19. Of those students that managed this calculation, some gave the final answer as £1.18 but many seemed unable to do the final division and so started to 'guess' possible answers and multiplied up in a trial and improvement method; this method was rarely successful.

A common error was to attempt the build up method for the percentage calculation, by finding 10% and then 5% and adding appropriate multiples to get to 35%. There were many responses where the intermediate figures, often inaccurate, were stated without giving the process they came from given, this does not score marks as no process is available to mark. Students should be encouraged to use calculators for this type of question on a calculator paper.

Only a small minority attempted the alternative method to start working with the price of the small bag first before working with percentage and most who did stopped when they reached £0.88.

Question 19 - Performance

Mean score	Max score	Mean %	Edexcel averages: mean scored by candidates achieving grade:						
			ALL	5	4	3	2	1	U
1.92	5	38	1.92	3.95	3.05	1.85	0.72	0.18	0.05



Q19

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✓

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Bar Chart

Clipboard

A

B

C

- Question: 10 11 12 17 18 19 24 25 27

Question 19 - Response A

19 Nimra buys a 3 kg box of sweets for £17.60
 She puts the sweets into bags to sell.
 Each bag contains 150g of sweets.
 Nimra fills as many bags as possible.
 She will sell each bag for the same price.
 Nimra wants to make a profit of at least 35%
 Assuming she sells all the bags,
 what is the lowest price Nimra should charge for each bag?

Handwritten student response:

3kg = 17.60
 150g
 1000g = 1kg

5 + 6 + 6 = 18 + 2 =
20 bags in total

100
 100 2 bag
 100

£1.19

the lowest price she could do
 is £1.19 as it would make her
 £23.80, which is above what
 she needed to make to make
 a profit of 35%.

If she were to do £1.18, this
 would mean she would only
 make £23.60, which is below
 35% profit

£1.19

5 / 5

Q19

? ✓

⋮

Bar chart icon

✍️

A B C

P1 the student arrives at 20 bags by looking at each kilogram individually and then working with the remainder of each kilogram, showing 300g is 2 more bags.

P1 at this point no process is shown but £6.16 is correct for 35%

P1 for the total of £23.76 shown. This is again without process and is the high risk option as any inaccuracy will lose the mark. Students should be encouraged to show working out.

P1 A1 are awarded for the correct price of £1.19 being given.
 Here the student tries both 1.18 and 1.19 and shows £1.19 is closer, this is considered a trial and improvement method BUT because both values are tried and the correct conclusion drawn, with the correct answer on the answer line, we can give the marks.

Question:

10

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 **Question 19 - Response B**

19 Nimra buys a 3 kg box of sweets for £17.60
 She puts the sweets into bags to sell.
 Each bag contains 150 g of sweets.
 Nimra fills as many bags as possible.
 She will sell each bag for the same price.
 Nimra wants to make a profit of at least 35%
 Assuming she sells all the bags,
 what is the lowest price Nimra should charge for each bag?

$3\text{kg} = 3000\text{g}$
 $3000\text{g} = \pounds 17.60$
 $3000 \div 150 = 20$ bag of sweets

$\pounds 17.60$
 $10\% = 1.760$
 $5\% = 0.88$
 $30\% = 1.760 \times 3 = 5.28$
 $35\% = 5.28 + 0.88 = \pounds 6.16$

$\begin{array}{r} 17.60 + \\ 6.16 \\ \hline \pounds 23.76 \end{array}$


$\pounds 1.188 = \pounds 2.888$


$\pounds 23.76 \div 20 = 1.188$


$\pounds 2.88$


(Total for Question 19 is 5 marks)


Q19











A

B

C

4 / 5

P1 for correct process to find the number of bags

P1 P1 for full process to work with percentage increase. All the figures given are accurate so the process marks can be awarded even though not all the process steps are seen. Note if figures are not accurate then processes must be seen to award the marks for work with percentages.

P1 for process to find the selling price, we can see $23.76 \div 20$

A0 the final figure is incorrect. It appears that the £2.88 comes from rounding £1.188 and this is obviously incorrect.

Question:

10

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24

25

27

 **Question 19 - Response C**

19 Nimra buys a 3 kg box of sweets for £17.60

She puts the sweets into bags to sell.
Each bag contains 150 g of sweets.

Nimra fills as many bags as possible.
She will sell each bag for the same price.

Nimra wants to make a profit of at least 35%

Assuming she sells all the bags,
what is the lowest price Nimra should charge for each bag?

£17.60 35%
 she wants

150g : 100% : 17.60
 1% : 0.176
x 5 (5% : 0.88) x 5
x 7 (35% : 6.16) x 7

1 / 5

Nothing else is written for this response.

P0 the number of bags have not been found.

P1 the learner shows the process to find 35% , first finding 1%, then 5% and then 35%. The working is shown at the side on the arrows and the figures are correct.

P0 there is no full process to find the total with the percentage increase.

P0 A0 the selling price is not found so neither of these marks can be awarded.

Q19

?

✓

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✎

A

B

C

- Question: **10** **11** **12** **17** **18** **19** **24** **25** **27**

Question 24

 Question  Mark Scheme  Examiner Comments

 Performance  Response A  Response B  Response C

Question 24 - Question

24 Festival A will be in a rectangular field with an area of $80\,000\text{ m}^2$
The greatest number of people allowed to attend Festival A is 425

Festival B will be in a rectangular field 700 m by 2000 m.
The greatest number of people allowed to attend Festival B is 6750

The area per person allowed for Festival B is greater than the area per person allowed for Festival A.

(a) How much greater?
Give your answer correct to the nearest whole number.

..... m^2
(4)

Callum says,

“ 300 cm^2 is the same as 3 m^2 because there are 100 cm in 1 m so you divide by 100”

Callum’s method is wrong.

(b) Explain why.

.....
.....
.....

(1)






(Total for Question 24 is 5 marks)

- Question: 10 11 12 17 18 19 24 25 27

 **Question 24 - Mark Scheme**

Question	Answer	Mark	Mark scheme	Additional guidance
24 (a)	19	P1	for process to find area available at festival B, eg $700 \times 2000 (=1\ 400\ 000)$	
		P1	for finding the area available per person at one festival, eg $80\ 000 \div 425 (= 188.23..)$ or $[\text{area}] \div 6750 (= 207.40..)$	Accept either number rounded eg 207 or 188
		P1	for finding the area available per person at both festivals, eg $80\ 000 \div 425 (= 188.23..)$ and $[\text{area}] \div 6750 (= 207.40..)$	Accept both numbers rounded eg 207 and 188
		A1	answer in the range 18.7 to 19.5	
(b) explanation		C1	for a valid statement relating to scale factor for area, Acceptable examples there are 10000 (cm ²) in 1 (m ²) because 1 m ² is the same as $100 \times 100 = 10000$ cm ² there are 2 side lengths that change from 1 m to 100 cm $300 \div 3$ is 100 should use 100^2 $300 \div 100 \div 100 = 0.03$ $3 \times 100 \times 100 = 30000$ Because it's area not length. Because it's in m ² not just metres He hasn't taken the squared sign into account Not acceptable examples there are 1000 cm in 1 m Callum is correct because	

Q24







A
B
C

- Question: 10 11 12 17 18 19 24 25 27

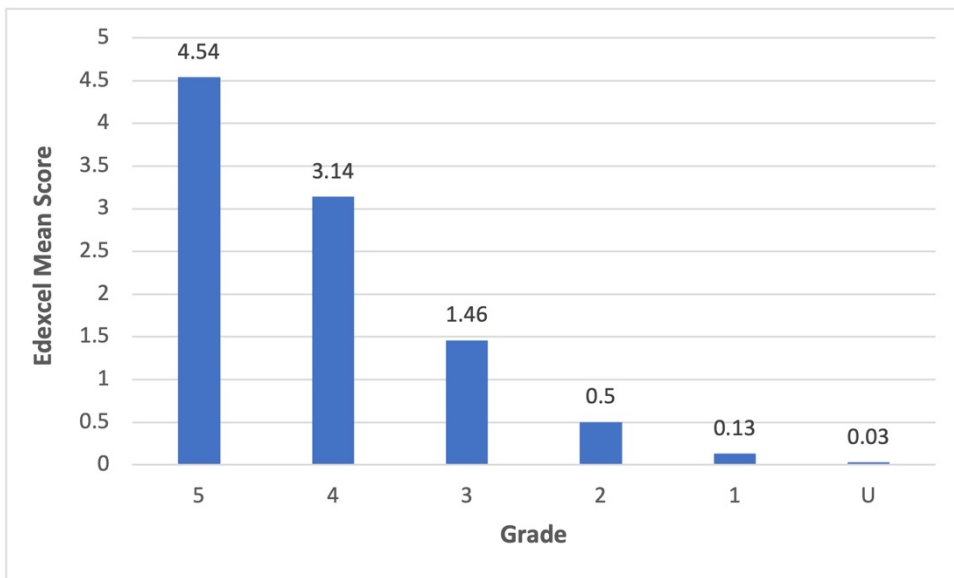
 **Question 24 - Examiner Comments**

It was pleasing to see that the many students were able to at least begin this multi-step problem involving area and proportion, with many gaining marks on this question. Most students were able to work out the area of the field at festival B and score the first mark, with many then continuing to use proportion correctly. Two or three marks were often awarded to students who were able to find the available area per person for each field, with many then continuing to complete the solution and gain full marks. However, a larger than expected number of students were unable to progress any further once they had found the area available at Festival B, with common mistakes being to subtract or divide the two areas rather than using proportionality. The final mark was occasionally lost due to arithmetic errors but the amount of working shown was pleasing to see.

Part (b) of this question was demanding for most students. This type of question is a specification requirement and, as with previous years, the conversion of units of area proved not to be well known. For this example some students did have the notion that the squared term was involved but mistakenly wanted to square the 3 as well giving the popular incorrect value of 90000 or 9. Others said that you had to use 100×100 but said this was to multiply by 1000. This is a contradiction and as such so no marks were awarded. Students should be encouraged to check for contradictions in their explanations.

 **Question 24 - Performance**

Mean score	Max score	Mean %	Edexcel averages: mean scored by candidates achieving grade:						
			ALL	5	4	3	2	1	U
1.61	5	32	1.61	4.54	3.14	1.46	0.50	0.13	0.03



Q24



A

B

C

Question:

10

11

12

17

18

19

24

25

27

 **Question 24a - Response A**

Festival A will be in a rectangular field with an area of 80 000 m²
 The greatest number of people allowed to attend Festival A is 425

Festival B will be in a rectangular field 700 m by 2000 m.
 The greatest number of people allowed to attend Festival B is 6750

The area per person allowed for Festival B is greater than the area per person allowed for Festival A.

- (a) How much greater?
 Give your answer correct to the nearest whole number.

$$\frac{80,000 \text{ m}^2}{425}$$

$$700 \times 2000 = 1,400,000 \text{ m}^2$$

$$\frac{207 \text{ m}}{188 \text{ m}}$$

$$18.76$$

$$\frac{18.76}{1} \text{ m}^2$$

4 / 4

Q24

Navigation icons: Question mark, Checkmark, Home, Bar chart, Pencil, A, B, C

Part (a)

Although there are few processes seen we can see
P1 awarded for the process to find the area of festival B.

P1 awarded for either 188 or 207 given as rounded figures.

P1 awarded for both 188 and 207 given as the area available per person at both festivals.

A1 can be awarded for the answer of 18.76 which is within the required range and not contradicted by any numbers given. It appears more accurate figures have been used but the evidence is enough for full marks. Note the requirement to give your answer as a whole number was regarded as is advisory

- Question: 10 11 12 17 18 19 24 25 27

 **Question 24a - Response B**

24 Festival A will be in a rectangular field with an area of 80 000 m²
 The greatest number of people allowed to attend Festival A is 425
 Festival B will be in a rectangular field 700 m by 2000 m.
 The greatest number of people allowed to attend Festival B is 6750
 The area per person allowed for Festival B is greater than the area per person allowed for Festival A.

- (a) How much greater?
 Give your answer correct to the nearest whole number.

FESTIVAL B

FESTIVAL A

$$80,000 \div 425$$

$$= 168.4 \text{ m}^2$$

$$700 \times 2000$$

$$= 1400000$$

$$6750$$

$$= 207.4 \text{ m}^2$$

$$207.4 - 168.4 = 39$$

$$\frac{39}{(4)} \text{ m}^2$$


3 / 4


Q24

?

✓

≡





A

B

C

Part (a)

P1 for area for festival B, 700×2000

P1 for the area per person calculated for one of the festivals so either $1400000 \div 6750$ or $80000 \div 425$

P1 for the area per person calculated for both of the festivals so for $1400000 \div 6750$ and $80000 \div 425$

A0 there is an arithmetic error when $80000 \div 425$ is calculated and so the accuracy mark cannot be awarded.

Question:

10

11

12

17

18

19

24

25

27

 **Question 24a - Response C**

24 Festival A will be in a rectangular field with an area of 80 000 m²
 The greatest number of people allowed to attend Festival A is 425

Festival B will be in a rectangular field 700 m by 2000 m.
 The greatest number of people allowed to attend Festival B is 6750

The area per person allowed for Festival B is greater than the area per person allowed for Festival A.


(a) How much greater?
 Give your answer correct to the nearest whole number.


Festival A = 80,000 m²
Festival B = 700m by 2000m = 1,400,000 m²
1,400,000 - 80,000 = 1,320,000
Festival B is 1,320,000 m² more greater than Festival A
425 - 6750 = 6,325 area per person


6,325 greater greater
1,320,000 m²
(4)


1 / 4


Q24











A

B

C

Part (a)

P1 for the area for Festival B, both the process and the answer are shown.

No other marks can be awarded as the student does not work with area per person at all.

- Question: 10 11 12 17 18 19 24 25 27

 **Question 24b - Response A**

Callum says,

"300 cm² is the same as 3 m² because there are 100 cm in 1 m so you divide by 100"

Callum's method is wrong.

(b) Explain why.

It would be 30,000 is the same as 3m². ~~Callum didn't square~~ Callum didn't square (1) it

(Total for Question 24 is 5 marks)

1 / 1

C1 for a correct explanation with 30 000 being the correct answer.

 **Question 24b - Response B**

Callum says,

$$100\text{cm} = 1\text{m}$$

"300 cm² is the same as 3 m² because there are 100 cm in 1 m so you divide by 100"

Callum's method is wrong.

(b) Explain why.


This would be wrong because they are squared. 1m² = 10,000cm²


(1)


1 / 1


C1 for using 1m is 100cm correctly to arrive at 1m²10 000cm²


Q24











A

B

C



Question:

10

11

12

17

18

19

24

25

27

**Question 24b - Response C**

Callum says,

“ 300cm^2 is the same as 3m^2 because there are 100cm in 1 m so you divide by 100”

Callum's method is wrong.

(b) Explain why.

Because 300cm^2 is $90,000\text{m}^2$

And 3m^2 is 9m^2

0 / 1

C0 should be awarded for a misconception that the square symbol on the units applies to the number.

Q24



A

B

C

- Question: 10 11 12 17 18 19 24 25 27

Question 25

? Question
✓ Mark Scheme
☰ Examiner Comments

📊 Performance
📝 Response A
📝 Response B
📝 Response C

? Question 25 - Question

25 The points L , M and N are such that LMN is a straight line.

The coordinates of L are $(-3, 1)$

The coordinates of M are $(4, 9)$

Given that $LM : MN = 2 : 3$,

find the coordinates of N .

(..... ,)

(Total for Question 25 is 4 marks)

✓ Question 25 - Mark Scheme

Question	Answer	Mark	Mark scheme	Additional guidance
25	14.5, 21	P1	for process to work with coordinates, eg $4 - (-3) (= 7)$ or $9 - 1 (= 8)$	Accept in reverse order eg $-3 - 4 (= -7)$ and negative distances throughout
		P1	for process to use ratio, eg $"7" \div 2 (= 3.5)$ or $"8" \div 2 (= 4)$ or $"7" \times 3 (= 21)$ or $"8" \times 3 (= 24)$	This mark is implied by 10.5 or 12 or 17.5 or 20
		P1	for complete process to find either the x or the y coordinate of N , eg $"3.5" \times 3 + 4$ or $"4" \times 3 + 9$ or $"3.5" \times 5 - 3$ or $"4" \times 5 + 1$ OR to find both the required distances eg $"3.5" \times 3 (= 10.5)$ and $"4" \times 3 (= 12)$ or $"21" \div 2 (= 10.5)$ and $"24" \div 2 (= 12)$ or $"3.5" \times 5 (= 17.5)$ and $"4" \times 5 (= 20)$	
		A1	oe	

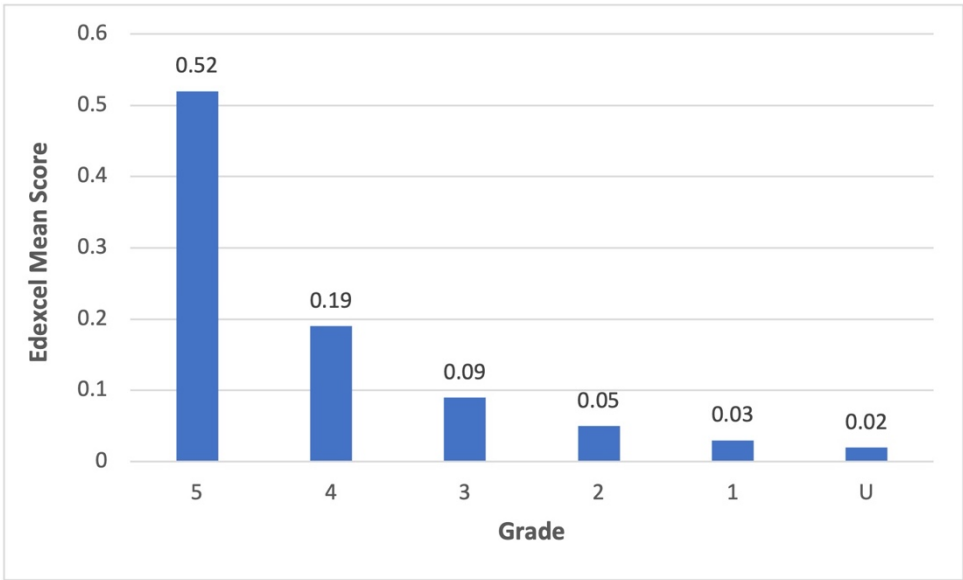
- Question: 10 11 12 17 18 19 24 25 27

 **Question 25 - Examiner Comments**


This was another question that was not well answered. The majority of students did not understand the need to work out distances using the coordinates given in the question. Both positive and negative values were accepted for these distances. There were many students who gave the answer of (11,17) implying that the differences of 7 and 8 were correctly calculated and added on to (4,9). However, in most of these responses, there was no working shown. When working was shown, students often tried to draw axes and plot points. The use of a diagram did allow some students to progress though this question and there were a small number of students who managed to find the y-coordinate.


 **Question 25 - Performance**


Mean score	Max score	Mean %	Edexcel averages: mean scored by candidates achieving grade:						
			ALL	5	4	3	2	1	U
0.16	4	4	0.16	0.52	0.19	0.09	0.05	0.03	0.02





Q25











A

B

C

- Question: 10 11 12 17 18 19 24 25 27

Question 25 - Response A

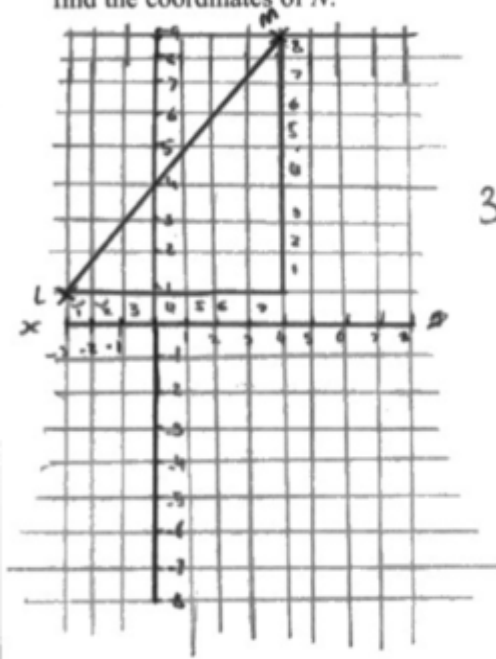
25 The points L , M and N are such that LMN is a straight line.

The coordinates of L are $(-3, 1)$

The coordinates of M are $(4, 9)$

Given that $LM : MN = 2 : 3$,

find the coordinates of N .



Handwritten student work:

$$7 \div 2 = 3.5$$

$$8 \div 2 = 4$$

2 (7, 8)

$$3.5 \times 3 = 10.5$$

$$4 \times 3 = 12$$

1 (3.5, 4)

$$12 + 9 = 21$$

3 (10.5, 12)

$$4 + 10.5 =$$

(14.5, 21)

(14.5, 21)

(10.5, 12)

4 / 4

- P1 for working with coordinates to find the differences (7,8) given.
- P1 for using the ratio $7 \div 2 = 3.5$ or $8 \div 2 = 4$
- P1 for a complete process to find one coordinate eg $4 + 10.5$ or $12 + 9$
- A1 can be awarded for the correct answer given.

Q25

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✓

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Bar chart icon

✍️

A

B

C

- Question: 10 11 12 17 18 19 24 25 27

Question 25 - Response B

25 The points L , M and N are such that LMN is a straight line.

The coordinates of L are $(-3, 1)$

The coordinates of M are $(4, 9)$

Given that $LM : MN = 2 : 3$,

find the coordinates of N .

$$(-3, 1) - (4, 9)$$

$(-3, 1)$ $(4, 9)$
 L M N
 $LM : MN = 2 : 3$ 1 part = $(3.5, 4)$
 $2 : 3$ $(3.5, 4)$
 $\div 2$ $(7, 8) : (10.5, 12)$ $\times 3$
 $(3.5, 4) : (10.5, 12)$ $(10.5, 12)$
 $\times 3$

$$(10.5, 12)$$

3 / 4

P1 for distances 7 or 8

P1 for the ratio used on these figures $\div 2$ is clearly shown.

P1 for finding both the required distances eg $3.5 \times 3 = 10.5$ and $4 \times 3 = 12$

A0 the final answer is only the 'gaps' and not the required coordinates.

Q25

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✓

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Bar chart icon


✍️

A

B

C

- Question: 10 11 12 17 18 19 24 25 27

 Question 25 - Response C

The points L , M and N are such that LMN is a straight line.
 The coordinates of L are $(-3, 1)$
 The coordinates of M are $(4, 9)$
 Given that $LM : MN = 2 : 3$,
 find the coordinates of N .

Handwritten student work:

$$\begin{matrix} -3, 1 \\ (\\ 4, 9 \end{matrix}$$

$$L7, +8$$

$$+3.5, +4$$


$$4 \downarrow 3.5 = 7.5$$


$$9 + 4 = 13$$


$$(7.5, 13)$$


2 / 4


Q25











A

B

C

- P1** for working with coordinates, both 7 and 8 are given. One of these is enough for this mark.
- P1** for a process to use the ratio, this can be awarded for either the 3.5 or the 4.
- P0** there is no complete process nor are the required distances calculated. The figures given come from incorrect processes.
- A0** should be awarded as the final figures given are incorrect.

Question:

10

11

12

17

18

19

24

25


27

Question 27

 Question

 Mark Scheme

 Examiner Comments

 Performance

 Response A

 Response B

 Response C

Question 27 - Question

27 In Spain, Sam pays 27 euros for 18 litres of petrol.
In Wales, Leo pays £40.80 for 8 gallons of the same type of petrol.

1 euro = £0.85
4.5 litres = 1 gallon

Sam thinks that petrol is cheaper in Spain than in Wales.

Is Sam correct?
You must show how you get your answer.

(Total for Question 27 is 4 marks)

Question 27 - Mark Scheme

Question	Answer	Mark	Mark scheme	Additional guidance
27	No (supported)	P1	for a conversion with litres and gallons, eg $18 \div 4.5 (= 4)$ or $8 \times 4.5 (= 36)$	See page at end of mark scheme May compare cost per gallon or cost in euros May be seen in a calculation or given in a description Accept comparative figures rounded or truncated No is implied by eg Wales is cheaper
		P1	for a conversion with £ and euros, eg $27 \times 0.85 (= 22.95)$ or $40.8 \div 0.85 (= 48)$	
		P1	for finding the unit price, eg $27 \div 18 (= 1.5)$ OR finding proportionality for fuel eg (" 36 " \div 18) $(= 2)$	
		C1	for No with comparative figures, eg No with 20.4 and 22.95 or No with 1.275 and 1.133..	

- Question: 10 11 12 17 18 19 24 25 27

Question 27 - Examiner Comments

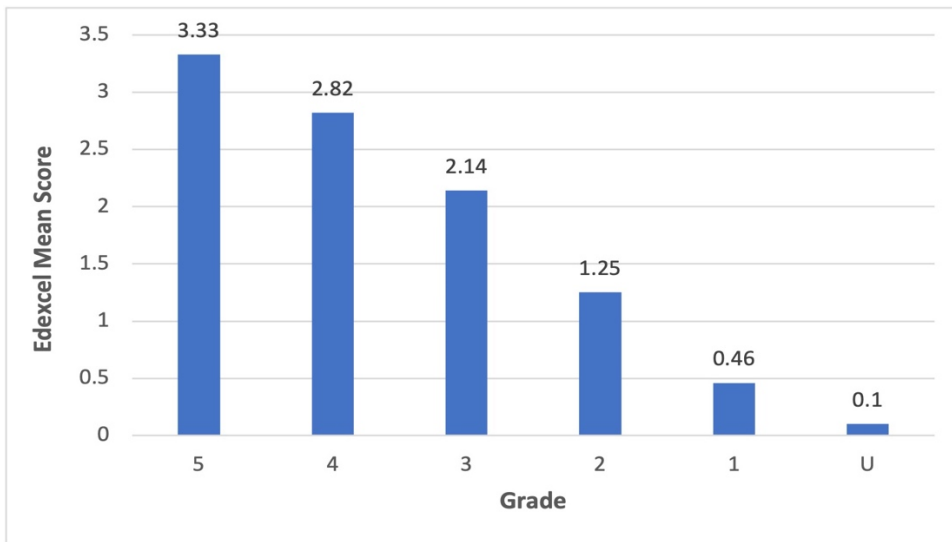
It is very pleasing to see that the modal score for this question was 4 marks. This question involved two conversions, the use of proportionality, and a conclusion. For those students who did not score full marks it was pleasing to note that many could correctly convert both the monetary and the fuel terms correct. This gained two of the marks available. However, they then failed to use the proportionality element which often meant doubling one commodity or halving or to find comparable unit prices.

Of the many different approaches to answer this question, comparing the cost of 8 gallons in pounds with the cost of 8 gallons in euros and cost of 18 litres in pounds to the given value of 18 litres in euros were the most popular and most successful. The most common error was connected with incorrect use of currency conversion with many attempting to divide by 0.85 rather than multiply by 0.85 when converting euros to pounds.


To improve outcomes students need exposure to different conversions in a variety of situations and need to think more about the units presented to them. Students would also benefit from improving their presentation of their calculations when answering these types of question. Systematic approaches were often always successful and when students split their working into two sections, one for Spain and one for Wales, they were often able to complete the processes required and often gained at least 3 or 4 marks, depending upon arithmetic accuracy and the final decision.


Question 27 - Performance

Mean score	Max score	Mean %	Edexcel averages: mean scored by candidates achieving grade:						
			ALL	5	4	3	2	1	U
2.00	4	50	2.00	3.33	2.82	2.14	1.25	0.46	0.10



Q27



A
B
C



Question:

10

11

12

17

18

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24

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27



Question 27 - Response A

In Spain, Sam pays 27 euros for 18 litres of petrol.

In Wales, Leo pays £40.80 for 8 gallons of the same type of petrol.

1 euro = £0.85

4.5 litres = 1 gallon

Sam thinks that petrol is cheaper in Spain than in Wales.

Is Sam correct?

You must show how you get your answer.

~~27 x 0.85 = 22.95~~

$€27 \times 0.85 = £22.95$ Sam pays £22.95 for 4 gallons
 18 litres = 4 gallons Leo pays £20.40 for 4 gallons

$40.80 \div 2 = 20.40$

Sam is not correct
 Petrol is cheaper in Wales because $£20.40 < £22.95$

4 / 4

P1 for a conversion 18 litres = 4 gallons is accurate and gets the mark.

P1 for a currency conversion $27 \times 0.85 = 22.95$ is both process and accurate figure.

P1 for using proportionality, seen here by $40.80 \div 2$

C1 Sam is not correct and also accurate comparative figures, in this case £20.40 and £22.95

Q27



A

B

C

Question:

10

11

12

17

18

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24

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27

 **Question 27 - Response B**

In Spain, Sam pays 27 euros for 18 litres of petrol.
 In Wales, Leo pays £40.80 for 8 gallons of the same type of petrol.

1 euro = £0.85
 4.5 litres = 1 gallon

Sam thinks that petrol is cheaper in Spain than in Wales.

Is Sam correct?
 You must show how you get your answer.

~~27 × 0.85~~

$8 \times 4.5 = 36$


$22.95 \div 18 = \pounds 1.28$
 $40.80 \div 36 = \pounds 1.13$


Sam is correct.


$27 \times 0.85 = \pounds 22.95$
 ↙
 18L
 $\pounds 40.80$
 ↘
 36L.


3 / 4


Q27











A

B

C

P1 for a correct conversion, $8 \times 4.5 = 36$

P1 for a correct currency conversion, $27 \times 0.85 = 18$

P1 for using unit prices, in this case the price per litre in pounds is given for both countries. One is enough for the mark.

C0 the conclusion is incorrect so this mark cannot be awarded.

- Question: 10 11 12 17 18 19 24 25 27

Question 9 - Response C

27 In Spain, Sam pays 27 euros for 18 litres of petrol.
In Wales, Leo pays £40.80 for 8 gallons of the same type of petrol.

1 euro = £0.85
4.5 litres = 1 gallon

Sam thinks that petrol is cheaper in Spain than in Wales.

Is Sam correct?
You must show how you get your answer.

Handwritten student work:

$0.85 \times 40.80 = 34.68$

$18 \div 4.5 = 4$

$4 \times 2 = 8$

$27 \times 2 = 54$

Annotations: "No, it is cheaper in Wales" (circled), "18 ÷ 4.5 = 4", "4 × 2 = 8", and "27 × 2 = 54". There is also some scribbled-out work.

2 / 4

Q27

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Bar chart icon

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A

B

C

No other working is shown.

P1 for a correct conversion for $18 \div 4.5 = 4$

P0 the money conversion is incorrect

P1 for finding proportionality eg $4 \times 2 = 8$, shows the use of doubling with the intention to compare 8 gallons in both countries.

C0 there is an incorrect process and the figures used are not fully correct, so this mark cannot be awarded.