

Write your name here

Surname <i>mel@jstmaths.co.uk</i>	Other names
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Centre Number Candidate Number

Pearson Edexcel Level 1/Level 2 GCSE (9–1)	<table border="1" style="width: 100%;"> <tr> <td style="width: 25px; height: 25px;"></td> <td style="width: 25px; height: 25px;"></td> <td style="width: 25px; height: 25px;"></td> <td style="width: 25px; height: 25px;"></td> </tr> </table> <table border="1" style="width: 100%;"> <tr> <td style="width: 25px; height: 25px;"></td> <td style="width: 25px; height: 25px;"></td> <td style="width: 25px; height: 25px;"></td> <td style="width: 25px; height: 25px;"></td> </tr> </table>								

Mathematics

Worked Solutions

Paper 2 (Calculator) *(there may be other methods too!)*

Achieving a Grade 2 **Foundation Tier**

Spring 2023 Practice Paper 30 marks 30 minutes	Paper Reference 1MA1/2F
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You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser, calculator. Tracing paper may be used.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*
- You must **show all your working**.
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- **Calculators may be used.**
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.



Information

- The total mark for this paper is 30. There are 11 questions.
- This paper assumes students have worked through the “Aiming for Grade 1 papers” and as a result may have already seen a small number of these questions.
- All the questions are placed in ascending order of mean difficulty as found by students achieving Grade 2 in the Summer and November 2022 examinations.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Answer ALL ELEVEN questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 Sophie works in a bed shop.
During the last three months she sold 198 beds. ✓
59 beds were sold without a mattress. ✓
45 beds were double beds. ✓
17 of the single beds were sold without a mattress. ✓
67 of the 83 king size beds were sold with a mattress. ✓
Use this information to complete the two-way table. ✓

$70 - 17 = 53$

	Single	Double	King size	Total
With mattress	53	19	67	139
Without mattress	17	26	16	59
Total	70	45	83	198

$139 - (53 + 67) = 19$

$$\begin{array}{r} 198 \\ - 59 \\ \hline 139 \end{array}$$

$198 - (45 + 83) = 70$

$45 - 19 = 26$

$$\begin{array}{r} 83 \\ - 67 \\ \hline 16 \end{array}$$

(Total for Question 1 is 3 marks)

- 2 Work out $\frac{5}{8}$ of 132

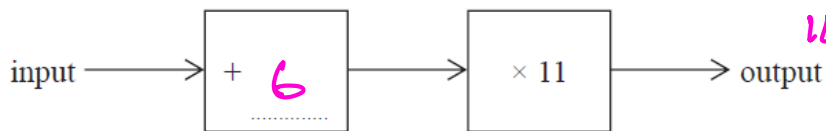
$132 \div 8 = 16.5$

$16.5 \times 5 = 82.5$

82.5

(Total for Question 2 is 2 marks)

- 3 Here is a number machine.
The number machine is not complete.



Check:
 $8 + 6 = 14$
 $14 \times 11 = 154$

When the input is 8, the output is 154
 Complete the number machine.

$154 \div 11 = 14$
 $14 - 8 = 6$

(Total for Question 13 is 2 marks)

- 4 Here is part of a bus timetable between Wigan and Bolton.

Wigan	07 20		07 40		07 55
Blackrod	07 49		08 09		08 24
Horwich	08 00	08 14	08 20	08 29	08 36
Lostock	08 09	08 20	08 29	08 37	08 44
Park Road	08 14	08 34	08 41	08 48	08 58
Bolton	08 32	08 51	08 58	09 05	09 15

Alison goes from Blackrod to Bolton by bus.

One day Alison leaves her house at 08 00

She takes 7 minutes to walk to the bus stop in Blackrod. ✓

She takes 15 minutes to walk from the bus stop in Bolton to work.

Alison needs to be at work for 09 20

Will Alison get to work for 09 20? You must show how you get your answer.

leaves house : 08 : 00

Bus stop : 08 : 07

Bus leaves : 08 : 09

Bus arrives : 08 : 58

Walk to work : $08:58 + 15 = 09:13$

She will arrive for 09:20.

(Total for Question 4 is 3 marks)

- 5** 214 people go on a school trip.
The people on the trip are either adults or children.

There are 14 adults on the trip.

35% of the children on the trip are wearing a hat.

Find the number of children on the trip who are **not** wearing a hat.

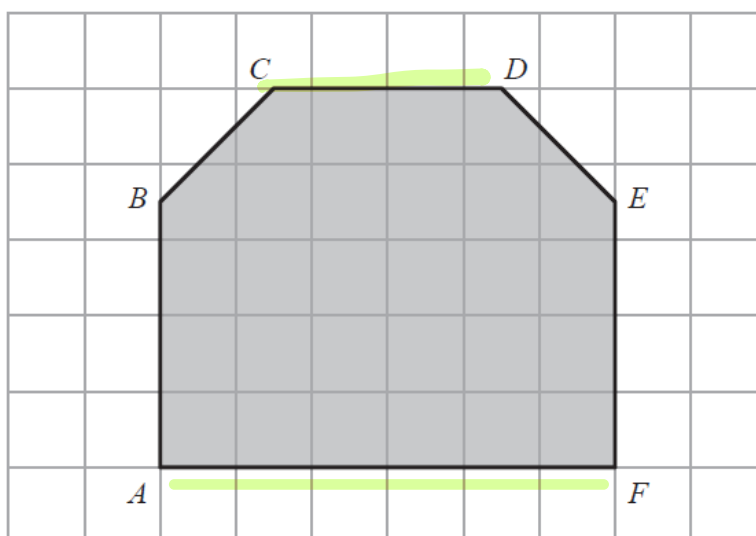
214

- adults 14
- children
 $214 - 14 = 200$
 - hat = 35% = 70 children
 - no hat = $200 - 70 = 130$

130

(Total for Question 5 is 4 marks)

- 6 Here is polygon $ABCDEF$ on a square grid.



Which side of the polygon is parallel to the side CD ?

AF (or FA)

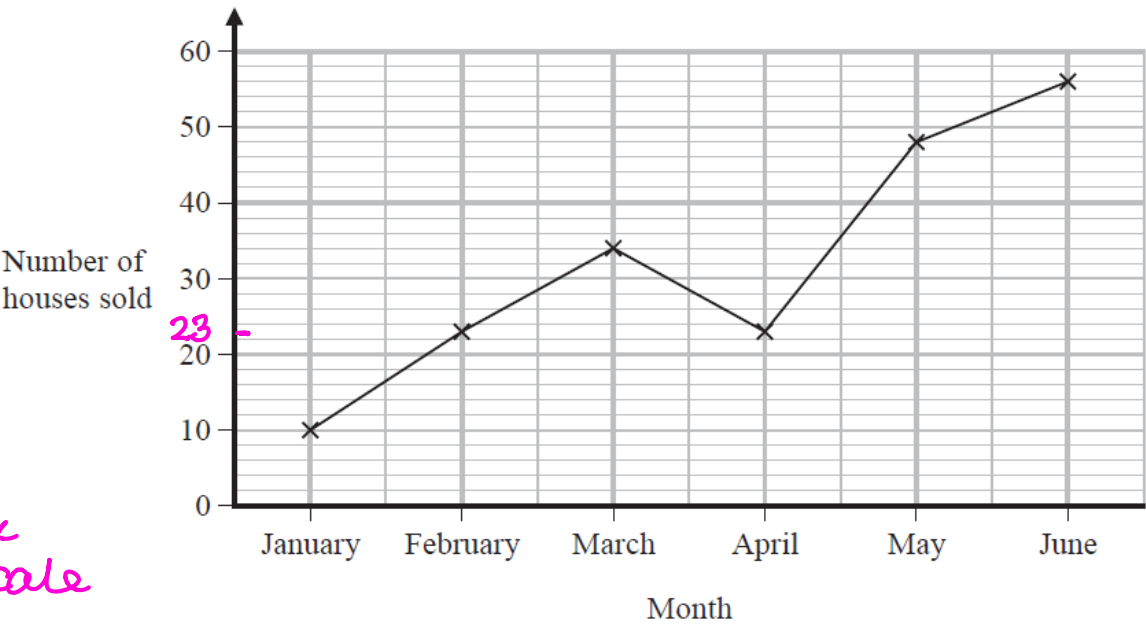
(Total for Question 6 is 1 mark)

- 7 Write a fraction in the box to make the calculation correct.

$$1 - \frac{3}{10} = \frac{7}{10}$$

(Total for Question 2 is 1 mark)

- 8 The graph shows information about the number of houses sold by an estate agent in each of six months last year.



How many houses were sold by the estate agent in February?

23

(Total for Question 8 is 1 mark)

- 9 Myles writes down the distance readings from his car at the start and end of a journey.

Start of journey

1	2	4	6	8
---	---	---	---	---

 miles

End of journey

1	2	8	4	5
---	---	---	---	---

 miles

Myles knows that the cost of petrol for this journey is 13p per mile.
Work out the total cost of the petrol used for this journey.
Give your answer in pounds.

$$12845 - 12468 = 377 \text{ miles}$$

$$377 \times 0.13 = 49.01$$

£ 49.01

(Total for Question 9 is 4 marks)

10 A shop has two different special offers on milk.



75p

Pay for 2 bottles
get 1 bottle free



£1.28

Pay for 1 bottle
get 1 bottle half price

Which offer gives the better value for money?
You must show how you get your answer.

$$\begin{aligned} 2 \text{ pints} &= 75\text{p} \\ 4 \text{ pints} &= £1.50 \\ 6 \text{ pints} &= £1.50 \end{aligned}$$

$$\begin{aligned} 1 \text{ pint} &= £1.50 \div 6 \\ &= 25\text{p} (£0.25) \end{aligned}$$

$$\begin{aligned} 4 \text{ pints} &= 1.28 \\ 8 \text{ pints} &= 1.28 + 64 \\ &= £1.92 \end{aligned}$$

$$\begin{aligned} 1 \text{ pint} &= 1.92 \div 8 \\ &= 24\text{p} (£0.24) \end{aligned}$$

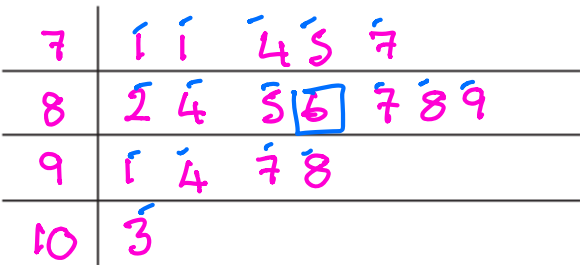
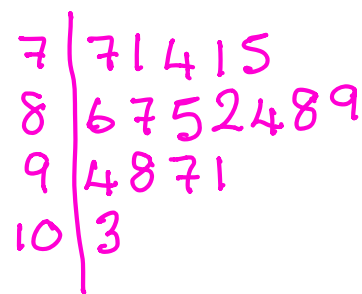
The 4 pint offer is better value

(Total for Question 10 is 4 marks)

11 Hetvi asked her friends how many stickers they each have in their collection. Here are her results.

77	86	94	87	71	98
74	103	71	85	82	84
97	91	88	89	75	

(a) Show this information in a stem and leaf diagram.



Key:

7 | 1 = 71

(3)

(b) Find the median number of stickers.

86

(2)

(Total for Question 11 is 5 marks)

TOTAL FOR PAPER IS 30 MARKS