

Write your name here

Surname <i>me@jstmaths.co.uk</i>	Other names
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Pearson Edexcel Centre Number Candidate Number
 Level 1/Level 2 GCSE (9-1)

Centre Number	Candidate Number
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Mathematics *Worked Solutions*
Paper 3 (Calculator) *(there may be other methods too!)*
 Achieving a Grade 2 **Foundation Tier**

Spring 2023 Practice Paper 32 marks 30 minutes	Paper Reference 1MA1/3F
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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 32. There are 17 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.

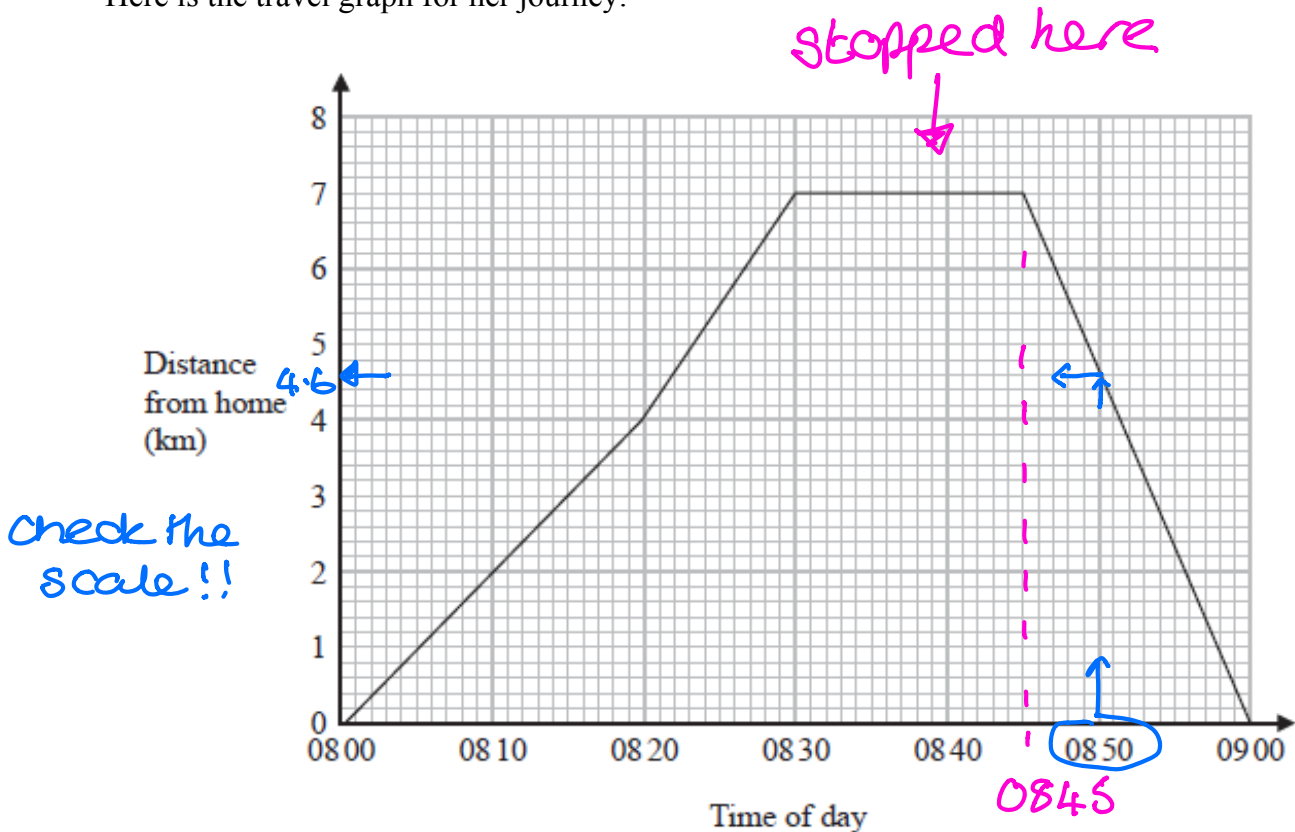
Answer ALL SEVENTEEN questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 Carly cycles to her friend's house.
She stays at her friend's house for a number of minutes.
Then she cycles home.

Here is the travel graph for her journey.



- (a) For how many minutes did Carly stay at her friend's house?

08:30 to 08:45

15

..... minutes (1)

- (b) How far is Carly from her home at 08 50?

4.6

..... km (1)

(Total for Question 1 is 2 marks)

Range of 4.4 to 4.8
accepted)

2 208 bars of chocolate were sold from a shop.

$\frac{1}{4}$ of these bars of chocolate were large bars.

The rest of the bars of chocolate were small bars.

All the large bars of chocolate were sold for £1 each.

All the small bars of chocolate were sold for 60p each.

Work out the total amount of money for which the 208 bars of chocolate were sold.

Give your answer in pounds.

Handwritten solution for Question 2:

208

$\frac{1}{4} = \text{LARGE} = \frac{208}{4} = 52$ $52 \times £1 = £52$

Small = $208 - 52 = 156$ $156 \times 0.6 = 93.60$

Total $52 + 93.60 = 145.60$

£ 145.60
 (Total for Question 2 is 3 marks)

3 Here is the shoe size of each of 12 boys in a class.

already in size order.

4 / 5 / 6 / 6 / 6 / 7 / 7 / 8 / 8 / 8 / 8 / 9

(a) Find the median.

7 (1)

(b) Work out the range.

$9 - 4 = 5$

5 (1)

(Total for Question 3 is 2 marks)

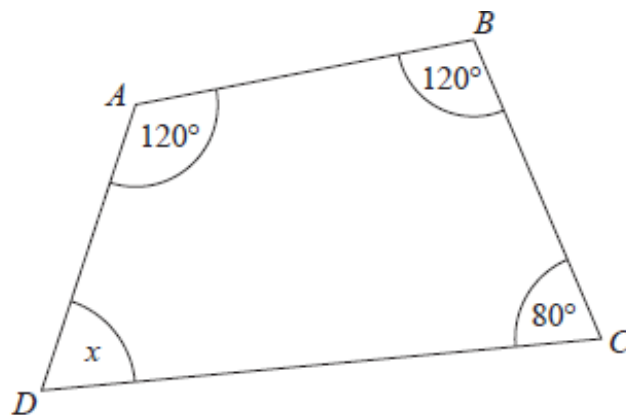
4 Write the following numbers in order of size. Start with the smallest number.

0.410 0.500 0.460 0.408

0.408 0.41 0.46 0.5

(Total for Question 4 is 1 mark)

5 $ABCD$ is a quadrilateral.



Work out the size of angle x .

$$360 - (120 + 120 + 80) = 360 - 320 = 40$$

40

.....°

(Total for Question 5 is 1 mark)

6 Here are the first three terms of a sequence.

$$20 \xrightarrow{-4} 16 \xrightarrow{-3} 13$$

(or $13 - 2 = 11$
 $11 - 1 = 10$)

(i) Write down two numbers that could be the 4th and 5th terms of this sequence.

$$13 - 4 = 9 \quad 9 - 3 = 6$$

9, 6

..... (1)

(ii) Write down the rule you used to get your numbers.

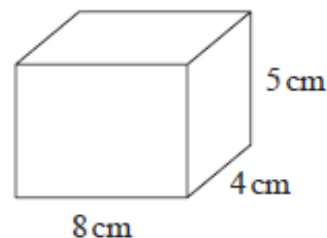
Subtract 4, then subtract 3 and repeat.

(or the difference between the terms decreases by 1 every time)

(Total for Question 6 is 2 marks)

7 Here is a cuboid.

Work out the volume of the cuboid.



$$8 \times 4 \times 5 = 8 \times 20 = 160$$

160

..... cm^3

(Total for Question 7 is 2 marks)

8 Here are the first five terms of a number sequence.

3 8 13 18 23

Jim says that 50 is a term in this sequence.

Jim is wrong. Explain why.

All the terms end in 3 or 8, 50 ends in 0

(Total for Question 8 is 1 mark)

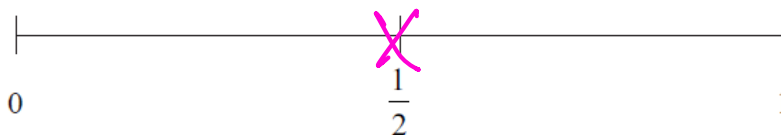
9 Here is a list of 8 numbers.

2 2 3 5 6 6 8 9

Kim picks at random one of these numbers.

(a) On the probability scale below, mark with a cross (×) the probability that Kim picks a number greater than 5

$\frac{4}{8}$



(1)

(b) Find the probability that Kim picks an even number.

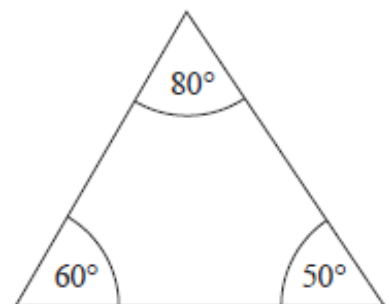
$\frac{5}{8}$

(Total for Question 9 is 3 marks)

10 The diagram below shows a triangle.

The diagram is wrong. Explain why.

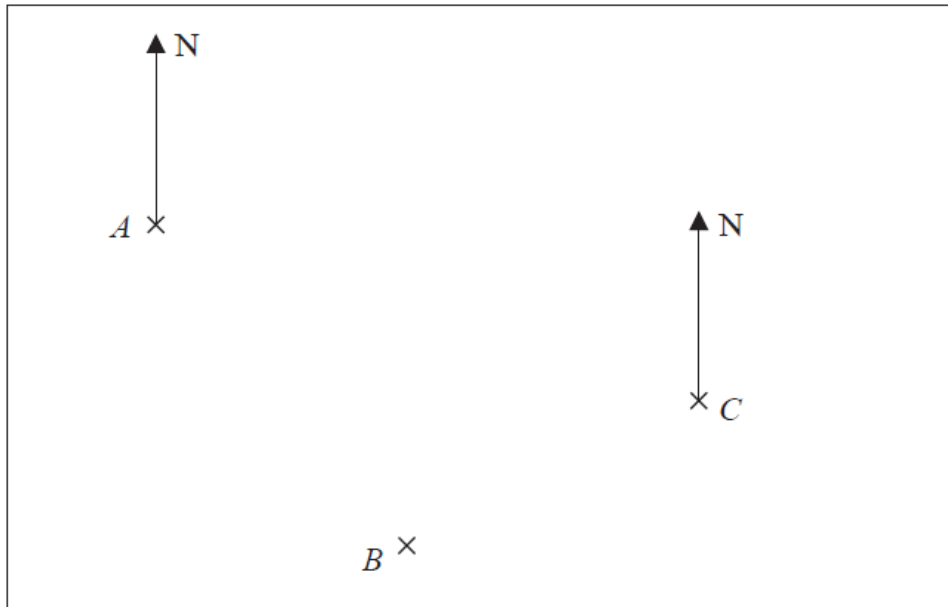
$$80 + 60 + 50 = 190$$



The angles add up to 190, whilst the angles in a triangle always add up to 180°

(Total for Question 10 is 1 mark)

11 The accurately drawn map shows the positions of three points, A , B and C , in a field.



Scale: 1 cm represents 150 metres

Parveen walks in a straight line from A to B .
 She then walks in a straight line from B to C .
 Susan walks in a straight line from A to C .
 Parveen walks more metres than Susan.
 How many more?

This will depend upon your printer settings

Parveen

$$\text{length } AB \text{ in cm} \times 150 + \text{length } BC \times 150 = \underline{\textcircled{1}}$$

Susan

$$\text{length } AC \text{ in cm} \times 150 = \underline{\textcircled{2}}$$

Your final answer should be the difference between $\textcircled{1}$ and $\textcircled{2}$ metres
 (Total for Question 11 is 3 mark)

- 12 Write 60 metres as a fraction of 1000 metres.
Give your answer in its simplest form.

$$\frac{60}{1000} = \frac{6}{100}$$

$$\frac{6}{100} = \frac{3}{50}$$

3/50

(Total for Question 12 is 2 marks)

- 13 Amol, Gemma and Harry each have a number of sweets.

The number of sweets that Gemma has is 6 times the number of sweets that Amol has.
The number of sweets that Harry has is half the number of sweets that Gemma has.

Write down the ratio

the number of sweets that Amol has : the number of sweets that Gemma has : the number of sweets that Harry has

A

G

H

if Amol has 1 sweet.

1

$$6 \times 1 = 6$$

$$6 \div 2 = 3$$

so

1

:

6

:

3

1:6:3

(Total for Question 13 is 2 marks)

16 Rob has been asked to divide 120 in the ratio 3 : 5

Here is his working.

$$120 \div 3 = 40 \quad 120 \div 5 = 24$$

$$\begin{array}{l} 120 \div 8 = 15 \\ 15 \times 3 = 45 \\ 15 \times 5 = 75 \end{array}$$

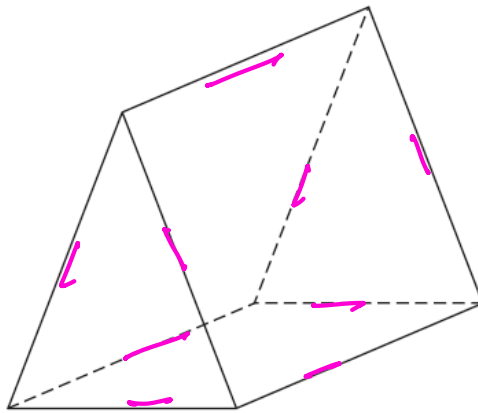
Rob's working is not correct.

Describe what Rob has done wrong.

Rob should have divided by 8 (not 3)

(Total for Question 16 is 1 mark)

17 The diagram shows a solid triangular prism.



Write down the number of edges of the prism.

9

(Total for Question 17 is 1 mark)

TOTAL FOR PAPER IS 32 MARKS