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

Centre Number

Candidate Number

Mathematics

Paper 3 (Calculator)

Achieving a Grade 2

Foundation Tier

Spring 2023 Practice Paper
32 marks 30 minutes

Paper Reference
1MA1/3F

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.

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.

Time of day
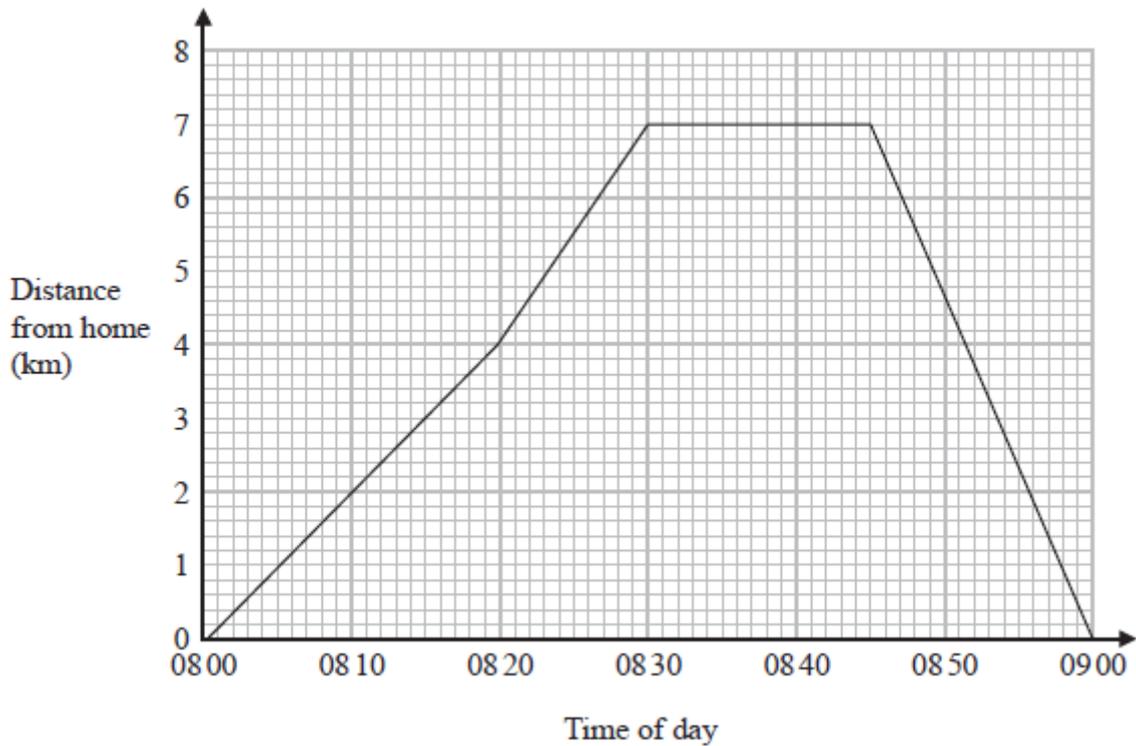
(*a*) For how many minutes did Carly stay at her friend's house?

.... minutes **(1)**

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

.... km **(1)**

(Total for Question 1 is 2 marks)

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.

£..

(Total for Question 2 is 3 marks)

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

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

(*a*) Find the median.

....**(1)**

(*b*) Work out the range.

....**(1)**

(Total for Question 3 is 2 marks)

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

0.41   0.5   0.46   0.408

....

(Total for Question 4 is 1 mark)

5   *ABCD* is a quadrilateral.

Work out the size of angle *x*.

....°
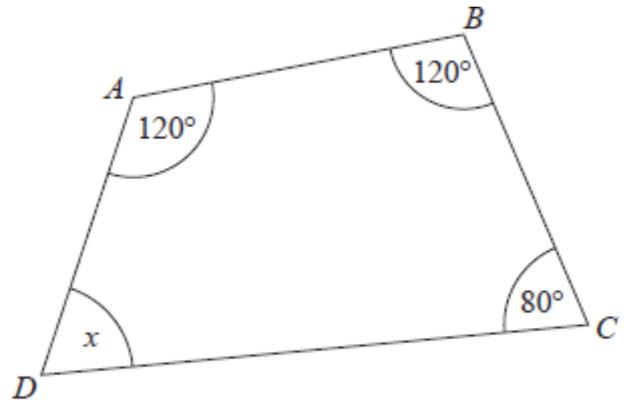
(Total for Question 5 is 1 mark)

6   Here are the first three terms of a sequence.

$$20 \qquad 16 \qquad 13$$

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

.... , ... **(1)**

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

....

....

....**(1)**

(Total for Question 6 is 2 marks)

7   Here is a cuboid.

Work out the volume of the cuboid.
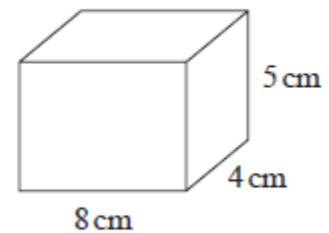
.... cm³

(Total for Question 7 is 2 marks)

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

$$3 \qquad 8 \qquad 13 \qquad 18 \qquad 23$$

Jim says that 50 is a term in this sequence.
Jim is wrong. Explain why.

....

....

....

(Total for Question 8 is 1 mark)

9 Here is a list of 8 numbers.

$$2 \qquad 2 \qquad 3 \qquad 5 \qquad 6 \qquad 6 \qquad 8 \qquad 9$$

Kim picks at random one of these numbers.

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

$$0 \qquad\qquad \frac{1}{2} \qquad\qquad 1$$
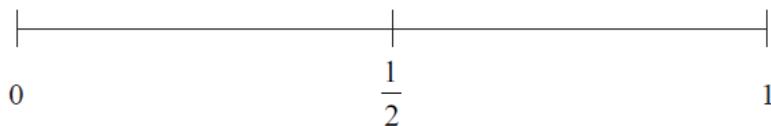
(1)

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

.... **(2)**

(Total for Question 9 is 3 marks)

10 The diagram below shows a triangle.
The diagram is wrong. Explain why.

....

....

....
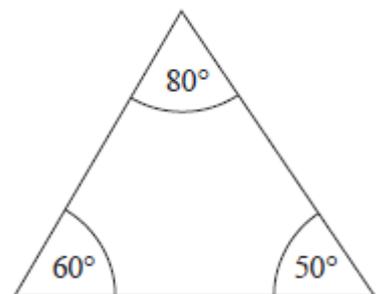
(Total for Question 10 is 1 mark)

11 The accurately drawn map shows the positions of three points, *A*, *B* and *C*, in a field.
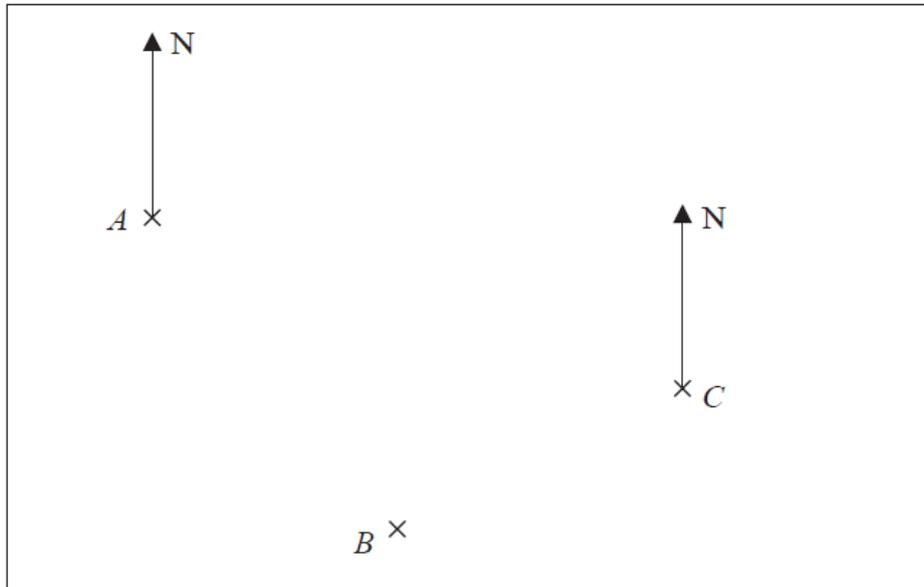
Scale: 1 cm represents 150 metres

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?

.... 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.

....

(Total for Question 12 is 2 marks)

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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

....

(Total for Question 13 is 2 marks)

14 One weekend the Keddie family is going to do a sports quiz and a music quiz.

The probability that the family will win the sports quiz is 0.3
The probability that the family will win the music quiz is 0.35

Complete the probability tree diagram.

Sports quiz   Music quiz

0.35   win

0.3   win

do not win

....   do not win

0.35   win

....   do not win

....   do not win

(Total for Question 14 is 2 marks)

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15 200 students chose one language to study.
Each student chose one language from French or Spanish or German.

Of the 200 students,

    90 are boys and the rest of the students are girls
    70 chose Spanish
    60 of the 104 students who chose French are boys
    18 girls chose German.

Work out how many boys chose Spanish.

....

(Total for Question 15 is 3 marks)

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

Here is his working.

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

Rob's working is not correct.

Describe what Rob has done wrong.

....

....

....

(Total for Question 16 is 1 mark)

17 The diagram shows a solid triangular prism.
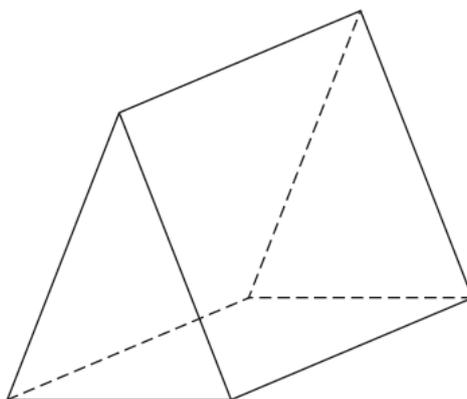
Write down the number of edges of the prism.

....

(Total for Question 17 is 1 mark)

TOTAL FOR PAPER IS 32 MARKS