

Write your name here	
Surname	Other names
Pearson Edexcel	Centre Number
Level 1/Level 2 GCSE (9-1)	Candidate Number
Mathematics Paper 3 (Calculator)	
Aiming for Grade 4	Foundation Tier
Spring 2024 Practice Paper 44 marks 45 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 44. There are 15 questions.
- Questions have been broadly arranged in an ascending order of mean difficulty, as found by students achieving Grade 4 in the Summer and November 2023 examinations.
- Questions marked with an asterisk (*) also appear on the Higher Tier paper.
- 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.

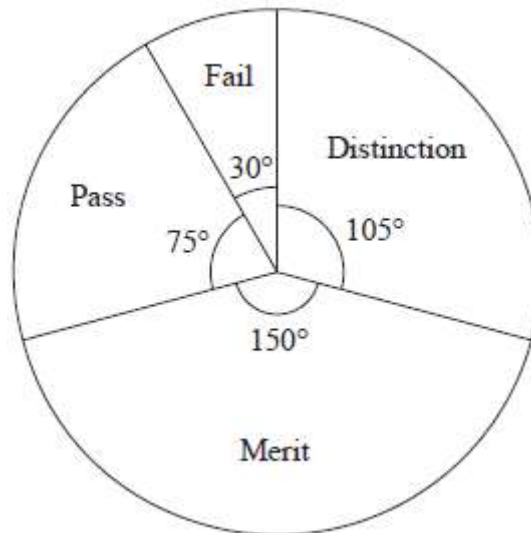
Answer all questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1** Some students took a guitar exam.

The pie chart shows information about the grades the students got.



- (a) Write down the modal grade.

.....
(1)

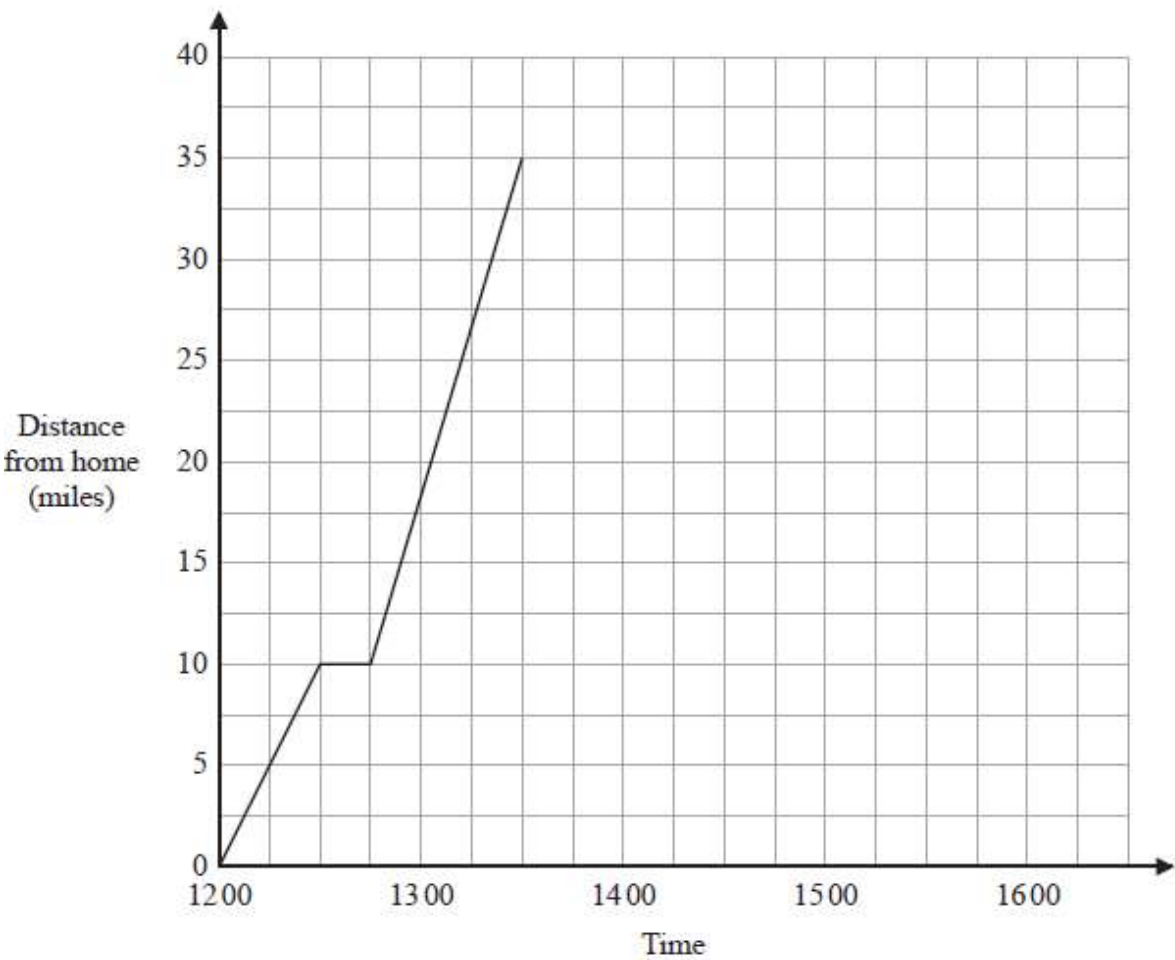
7 students got distinction.

- (b) Work out the total number of students who took the guitar exam.

.....
(3)

(Total for Question 1 is 4 marks)

2 Rowena drove from her home to a beach.
Here is a travel graph for her journey.



Rowena stopped at a cafe on her way to the beach.

(a) (i) How many minutes did Rowena take to drive to the cafe?

..... minutes
(1)

(ii) Write down the distance from Rowena's home to the cafe.

..... miles
(1)

Rowena stayed at the beach for $1\frac{1}{2}$ hours.

She then drove home without stopping.

Rowena arrived home at 16 00

(b) On the grid, complete the travel graph.

(2)

(c) Work out the average speed for the journey from the beach to Rowena's home.

..... miles per hour

(1)

(Total for Question 2 is 5 marks)

3 Write down the value of the 9 in the number 27.963

.....

(Total for Question 14 is 1 mark)

*4 (a) Simplify $(m^2)^3$

.....

(1)

(b) Simplify $x^5 \times x^8$

.....

(1)

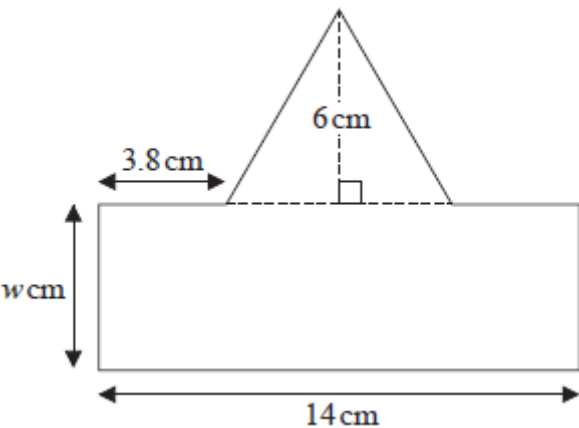
(c) Expand $4p(p^2 + 3p)$

.....

(2)

(Total for Question 3 is 4 marks)

5 Here is a shape made from a rectangle and a triangle.



The shape has exactly one line of symmetry.

The area of the rectangle is 3.5 times the area of the triangle.

The width of the rectangle is w cm.

Work out the value of w .

You must show all your working.

$w = \dots\dots\dots$

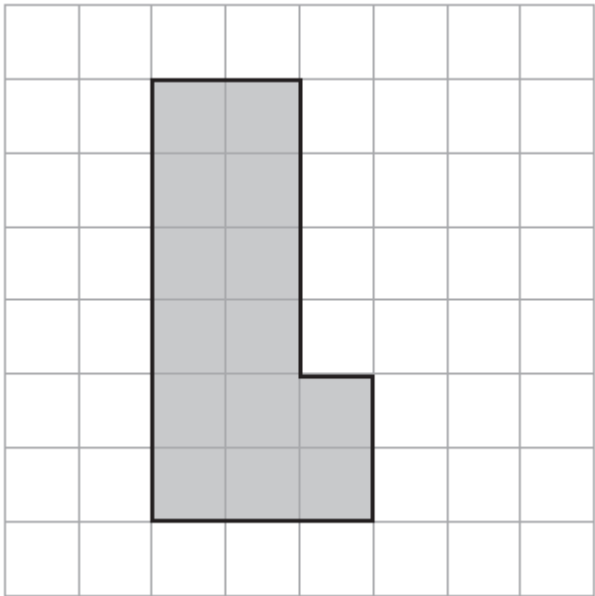
(Total for Question 4 is 5 marks)

6 Solve $\frac{x}{7} + 9 = 4$

$x = \dots\dots\dots$

(Total for Question 5 is 2 marks)

7 The diagram shows a shape on a centimetre grid.



(a) Find the area of the shape.

..... cm²
(1)

(b) Find the perimeter of the shape.

..... cm
(1)

(Total for Question 6 is 2 marks)

*8 (a) Write 468 000 in standard form.

.....
(1)

(b) Write 5.037×10^{-4} as an ordinary number.

.....
(1)

(Total for Question 7 is 2 marks)

***9** Riley travelled by car and by aeroplane.
He travelled 143 miles by car at an average speed of 55 miles per hour.
Riley then travelled for 5 hours and 20 minutes by aeroplane.
Work out, in hours and minutes, Riley’s total travelling time.

..... hours minutes

(Total for Question 8 is 3 marks)

10 The diagram shows the position of town T .



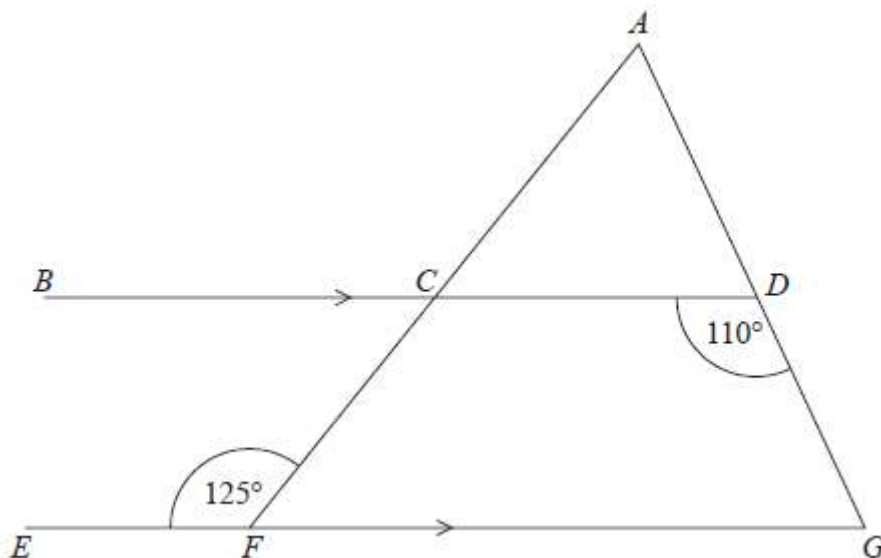
Town R is 55 km from town T on a bearing of 065°

Mark the position of town R with a cross ($\times$).

Use a scale of 1 cm to 10 km.

(Total for Question 9 is 2 marks)

- *11** ACF and ADG are straight lines.
 BCD and EFG are parallel lines.



Show that triangle ACD is isosceles.
Give a reason for each stage of your working.

(Total for Question 10 is 5 marks)

- *12** A company orders a large number of plates from a factory.
It would take 30 hours to make all the plates using 4 machines.
How many machines are needed to make all the plates in 6 hours?

.....
(Total for Question 11 is 2 marks)

- 13** Write $(9 \times 10^4) : (4.5 \times 10^6)$ in the form $1 : n$ where n is an integer.

.....
(2)

(Total for Question 12 is 2 marks)

- *14** A solid cuboid is made of metal.
The metal has a density of 9 g/cm^3
The volume of the cuboid is 72 cm^3
Work out the mass of the cuboid.

..... g
(Total for Question 13 is 2 marks)

- 15 Jenny invests £3000 for 6 years at $y\%$ simple interest per year.
At the end of the 6 years, Jenny has received a total of £450 in interest.
Work out the value of y .

$y = \dots\dots\dots$

(Total for Question 15 is 3 marks)

TOTAL FOR PAPER IS 44 MARKS