

Please check the examination details below before entering your candidate information

Candidate surname

Other names

Centre Number

Candidate Number

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Edexcel Mock Test Papers–Paper3

Test3

Paper

3F

Time 1 hour 30 minutes

Mathematics
PAPER 3 (Calculator)
Foundation Tier

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser, calculator, Formulae Sheet (enclosed). 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 80
- 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. Try to answer every question.
- Check your answers if you have time at the end.

Turn over



Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 Write the number nine thousand two hundred and ninety seven in figures.

.....

(Total for Question 1 is 1 mark)

- 2 Write $\frac{5}{100}$ as a percentage.

..... %

(Total for Question 2 is 1 mark)

- 3 Simplify $x + x + x + x + x$

.....

(Total for Question 3 is 1 mark)

- 4 Change 9000 grams into kilograms.

..... kilograms

(Total for Question 4 is 1 mark)

- 5 10 -9 4 9 -1

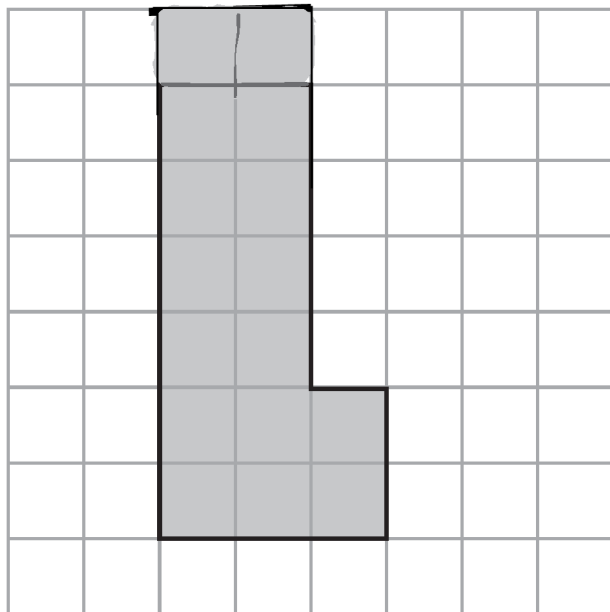
Write these numbers in order of size.

Start with the smallest number.

.....

(Total for Question 5 is 1 mark)

- 6 The diagram shows a shape on a centimetre grid.



- (a) Find the area of the shape.

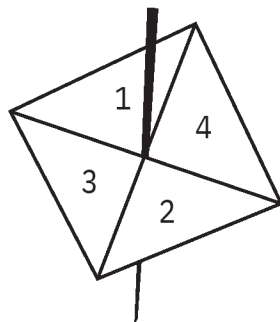
..... cm^2
(1)

- (b) Find the perimeter of the shape.

..... cm
(1)

(Total for Question 6 is 2 marks)

7 Here is a 4-sided spinner.



Emilia spins the spinner once.

(a) Choose the word that best describes the probability that the spinner lands on 5.

impossible unlikely evens likely certain

.....
(1)

(b) Choose the word that best describes the probability that the spinner lands on 4

impossible unlikely evens likely certain

.....
(1)

Milo rolls a biased dice once.

The probability that he gets the number 6 is 0.5

(c) Work out the probability that Milo does not get the number 6

.....
(1)

(Total for Question 7 is 3 marks)

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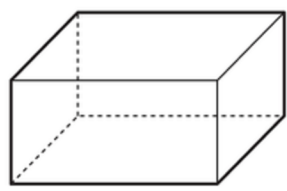
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8 A quadrilateral has 2 pairs of parallel sides and opposite angles are equal.

(a) Write down the mathematical name of this quadrilateral.

.....
(1)

The diagram shows a solid shape with 6 rectangular faces.



(b) Write down the mathematical name of this shape.

.....
(1)

(Total for Question 8 is 2 marks)

9 The table shows the number of movies watched by four friends in one month.

Person	Number of Movies
Ellis	8
Martin	12
Charlie	4
Teddy	6

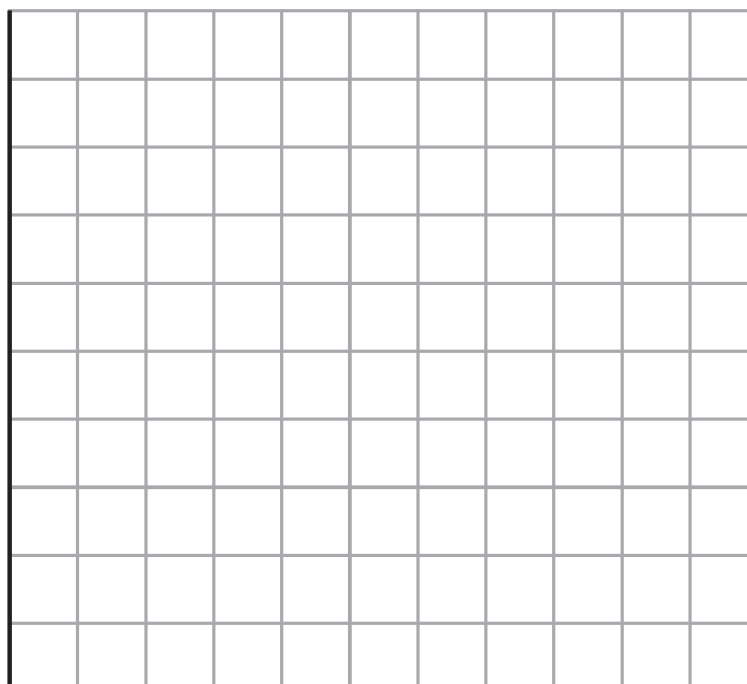
(a) Work out the median number of movies.

.....
(2)

(b) Find the range.

.....
(1)

(c) On the grid, draw a bar chart to show the information in the table.



(3)

(Total for Question 9 is 6 marks)

- 10 Chloe begins cycling at 9:15 AM.
She cycles for 2 hours and 30 minutes.

Chloe then stops for a 20-minute break.
She then cycles for another 75 minutes to reach the park.

Does Chloe get to the park before 1:00 PM?
You must show how you get your answer.

(Total for Question 10 is 4 marks)

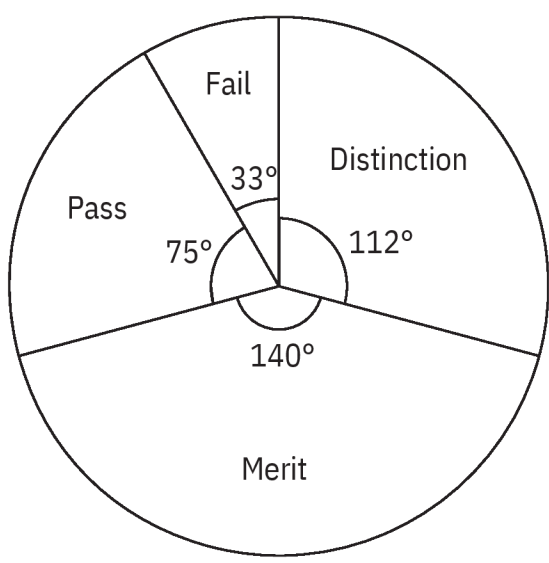
- 11 Vishi thinks of a number.
She multiplies her number by 2 and then adds 10
Her answer is 46
What number did Vishi think of?

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

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12 Some students took a piano exam.

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



(a) Write down the modal grade.

.....
(1)

8 students got distinction.

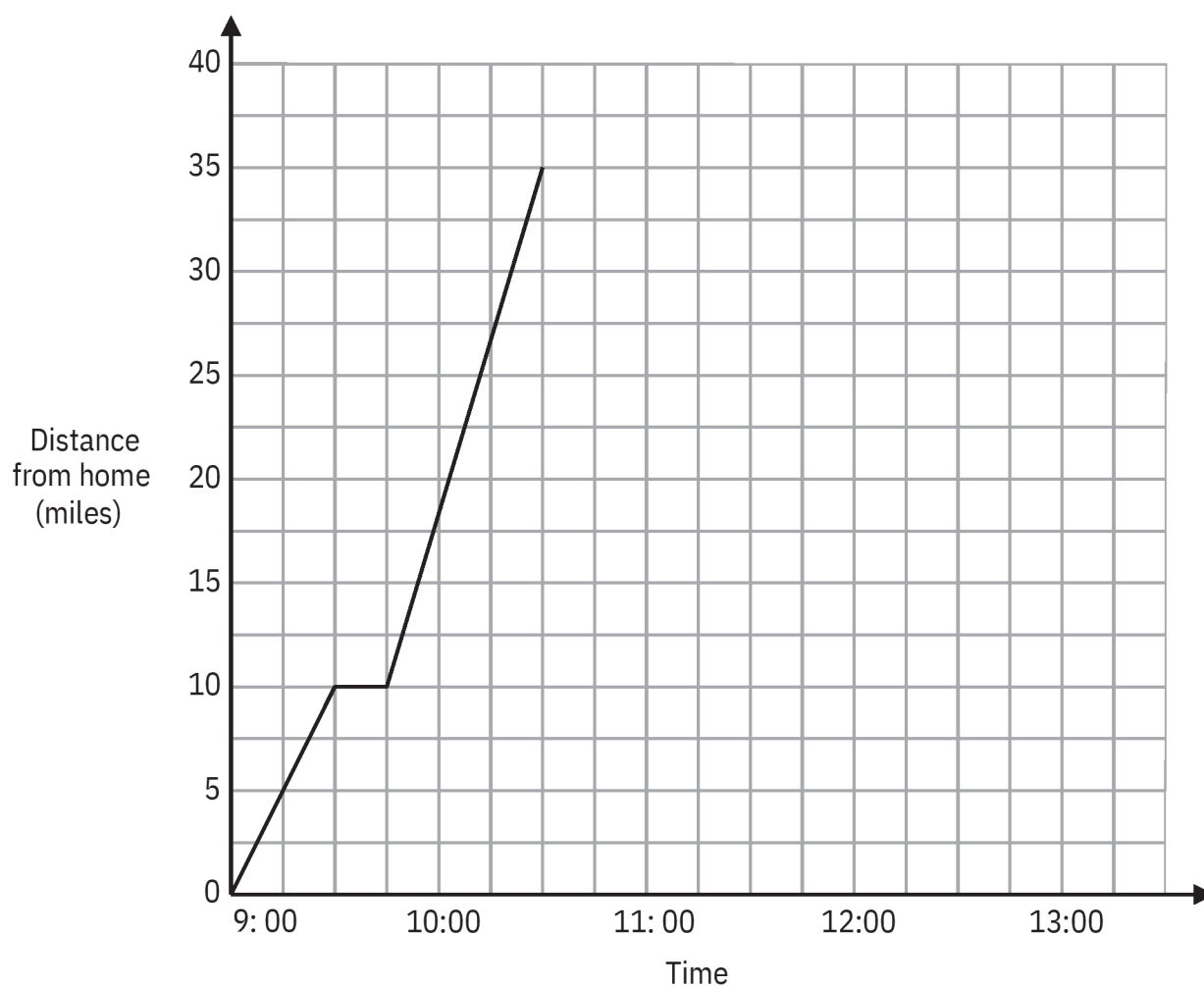
(b) Work out the total number of students who took the piano exam.

.....
(3)

(Total for Question 12 is 4 marks)

13 Matthew drove from his house to a mountain resort.

Here is a travel graph for his journey.



Matthew stopped at a restaurant on his way to the resort.

(a) (i) How many minutes did Matthew take to drive to the restaurant?

..... minutes
(1)

(ii) Write down the distance from Matthew's home to the restaurant.

..... miles
(1)

DO NOT WRITE IN THIS AREA DO NOT WRITE IN THIS AREA

Matthew stayed at the resort for $1\frac{1}{2}$ hours.

He then drove home without stopping.
Matthew arrived home at 13: 00

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

(2)

(c) Work out the average speed for the journey from the resort to Matthew’s home.

..... miles per hour
(1)

(Total for Question 13 is 5 marks)

14 150 notebooks cost £15

375 pens cost £20
A pen is cheaper than a notebook.

How much cheaper is a pen compared to a notebook?
Give your answer in pence, correct to 1 decimal place.

..... p

(Total for Question 14 is 4 marks)

15 There are only blue beads and yellow beads in a jar.

number of blue beads : number of yellow beads = 2 : 3

There are 40 blue beads in the jar.

Work out the total number of beads in the jar.

.....
(Total for Question 15 is 2 marks)

16

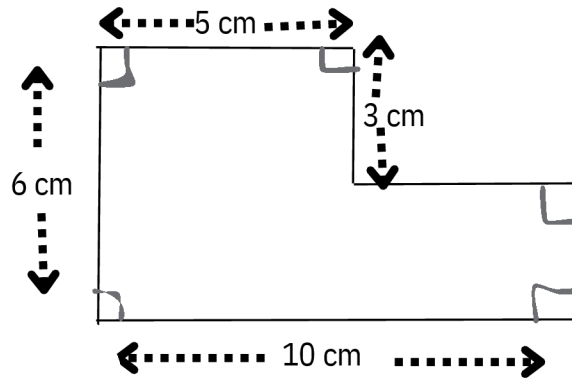
Solve $6q + 8 = 50$

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(Total for Question 16 is 2 marks)

17



Work out the perimeter of this shape.

..... cm

(Total for Question 17 is 2 marks)

18 Solve $6(5x + 5) = 25$

$x = \dots\dots\dots$

(Total for Question 18 is 3 marks)

19 Sarah invests £2500 for 5 years at a rate of $x\%$ simple interest per year.
At the end of the 5 years, Sarah has received a total of £375 in interest.
Work out the value of x .

$y = \dots\dots\dots$

(Total for Question 19 is 3 marks)

20 (a) Simplify $(m^4)^6$

.....
(1)

(b) Simplify $x^6 \times x^4$

.....
(1)

(c) Expand $5q (q^2 + 6q)$

.....
(2)

(Total for Question 20 is 4 marks)

21 Emily is planning a tea event for 900 people.

Each person who drinks tea will drink 3 cups of tea.

Each cup of tea requires 8.5 g of tea leaves.

Emily assumes 65% of the people will drink tea.

a) Using this assumption, work out the amount of tea leaves Emily needs

Give your answer correct to the nearest gram.

.....
(4)

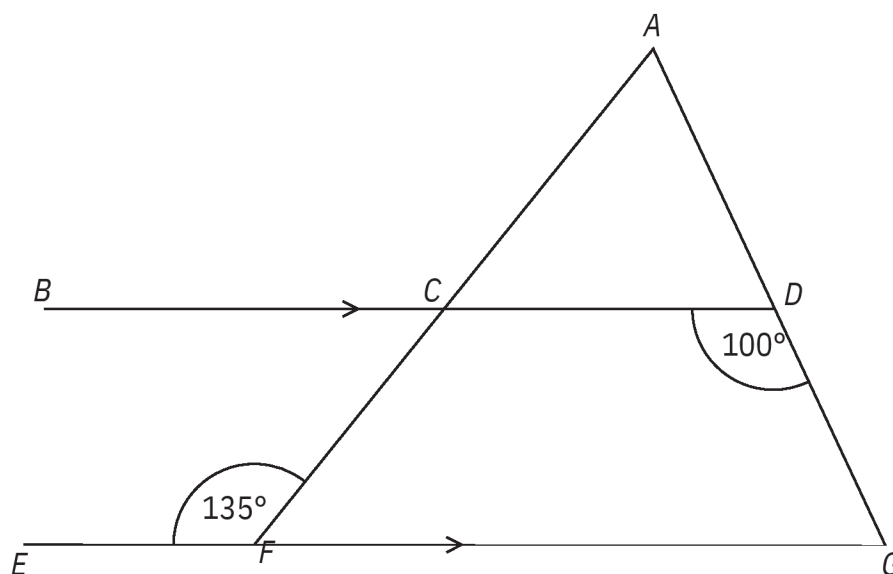
(b) If 70% of the people will actually drink tea,

how does this affect your answer to part (a)?

.....
(1)

(Total for Question 21 is 5 marks)

- 22 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 22 is 5 marks)

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23 It takes 10 hours for 6 identical machines to produce a batch of widgets.
How many hours would it take 4 of these machines to produce another batch of the same size?

..... hours

(Total for Question 23 is 2 marks)

24 A and B are numbers such that

$$A = 2^4 \times 3^4 \times 5$$

$$B = 2^3 \times 3^2 \times 5^2$$

(a) Find the highest common factor (HCF) of A and B

.....
(1)

(b) Find the lowest common multiple (LCM) of A and B .

.....
(2)

(Total for Question 24 is 3 marks)

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25 A river discharges water at a constant rate of $8.5 \text{ m}^3/\text{s}$.
How many days will it take for $36,720,000 \text{ m}^3$ of water to flow through the river?
Give your answer correct to the nearest day.

..... days

(Total for Question 25 is 3 marks)

- 26 Ivy is going to roll a fair die 60 times.
(a) Write down an estimate for the number of times the die will land on a 6.

.....
(1)

Mia and James are trying to find out if a different die is biased.

Mia rolls this die 15 times.
She records the number of times the die lands on a 6.

James rolls the same die 150 times.
He records the number of times the die lands on a 6.

(b) Whose results will be more useful in deciding if the die is biased?
Give a reason for your answer.

2

(1)

(Total for Question 26 is 2 marks)

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27 A solid rectangular prism is made of a material with a density of 5.5 g/cm³
The volume of the prism is 80 cm³.
Work out the mass of the rectangular prism.

..... g

(Total for Question 27 is 2 marks)

28 (a) Write $(5 \times 10^4) : (7.5 \times 10^7)$ in the form $1 : n$ where n is an integer.

.....
(2)

(b) Write the following numbers in order of size.
Start with the smallest number.

6.345×10^{-3} 6345 63450×10^4 0.006345×10^5

.....
(2)

(Total for Question 28 is 4 marks)

TOTAL FOR PAPER IS 80 MARKS