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1MA1 Nov 2026 Paper 1 Best Guess Paper

Higher · Standard

Disclaimer

This independently compiled practice paper is designed for students preparing for the Pearson Edexcel GCSE Mathematics 1MA1 Higher Tier, Paper 1 (non-calculator). It includes a range of accessible and challenging Higher Tier questions for standard exam practice, rather than focusing only on a particular target grade.

It is not an official Pearson Edexcel examination paper and is not endorsed by Pearson. The selection draws on previous exam-style material to support revision. There is no guarantee that these questions or topics will appear in the real examination. Claims of a perfectly predicted paper should not be relied on.

The best preparation is to revise the full specification. Attempt the paper, use the mark scheme and worked solutions to review your work, and practise related topics with the free worksheets and clips at www.mygrade9mathstutor.com.

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Video walkthrough

Non-calculator · 22 questions · 80 marks · Suggested time: 1 hour 30 minutes.
Attempt every question. Show your working, then review the mark scheme and worked solutions.

Answer ALL TWENTY-TWO questions.
Write your answers in the spaces provided.
You must show all stages of your working.

1 Work out

$$2\frac{1}{4} \div \frac{3}{5}$$

Give your answer as a mixed number in its simplest form.

(Total for Question 1 is 3 marks)

Model Solution	Practice Perfect Questions

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2 Alex, Ben, and Chloe share some money in the ratio 2: 5: 9.
Chloe receives £35 more than Alex.
Work out how much money Ben receives.

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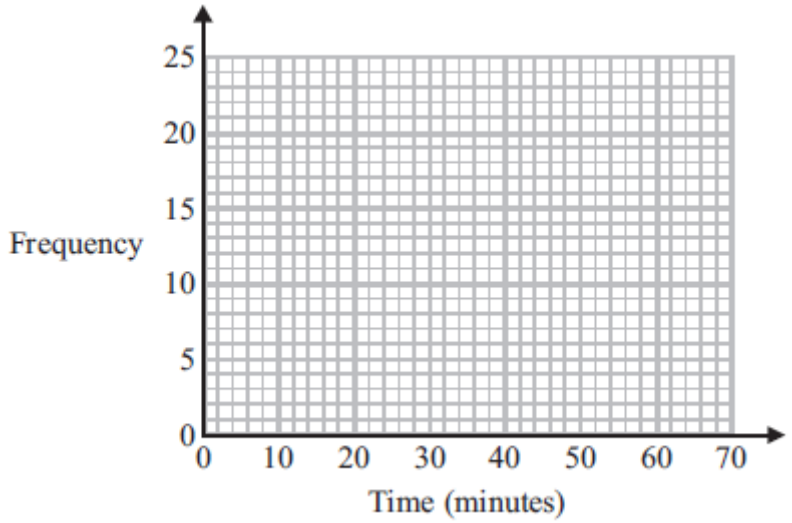
(Total for Question 2 is 2 marks)

Model Solution	Practice Perfect Questions

3. The frequency table gives information about the times it took some students to get to school one day.

Time (t minutes)	Frequency
$0 < t \leq 10$	14
$10 < t \leq 20$	18
$20 < t \leq 30$	4
$30 < t \leq 40$	6
$40 < t \leq 50$	6
$50 < t \leq 60$	2

(a) Draw a frequency polygon for this information.



(2)

(b) Write down the modal class interval.

.....

(1)

(Total for Question 3 is 3 marks)

Model Solution	Practice Perfect Questions

4 (a) Simplify $a^6 \times a^{10}$

.....

(1)

(b) Simplify $c^{30} \div c^{12}$

.....

(1)

Model Solution	Practice Perfect Questions
	

(c) (i) Factorise $x^2 - 10x + 24$

.....

(2)

(ii) Hence, solve $x^2 - 10x + 24 = 0$

.....

(1)

(Total for Question 4 is 5 marks)

Model Solution	Practice Perfect Questions
	

5. A number, y, is rounded to 2 significant figures.
The result is 0.046.
Write down the error interval for y.

(Total for Question 5 is 2 marks)

Model Solution	Practice Perfect Questions

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6 $\mathcal{E} = \{\text{integers from 1 to 12}\}$
$A = \{\text{factors of 12}\}$
$B = \{\text{multiples of 3}\}$
(a) List the members of the set $A \cap B$.

(2 marks)

A number is chosen at random from the universal set $\mathcal{E}$.
(b) Find the probability that this number is in the set $A \cup B$.

(2 marks)

(Total for Question 6 is 4 marks)

Model Solution	Practice Perfect Questions

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7 Use algebra to show that $0.\dot{3}8\dot{1} = \frac{21}{55}$

(Total for Question 7 is 3 marks)

Model Solution	Practice Perfect Questions

8 Expand and simplify $(x-2)(x+3)(2x+1)$.

(Total for Question 8 is 3 marks)

Model Solution	Practice Perfect Questions

9 *Point A has coordinates $(2,9)$.*
Point B has coordinates $(10,3)$.
Work out the exact length of the line segment AB.

(Total for Question 9 is 3 marks)

Model Solution	Practice Perfect Questions

10 a) Write 0.0000407 in standard form.

(1)

(b) Work out the value of $(3.2 \times 10^4) \times (5 \times 10^3)$.
Give your answer in standard form.

(2)

(Total for Question 10 is 3 marks)

Model Solution	Practice Perfect Questions

11 Liquid A has a density of 1.2 g/cm^3.
Liquid B has a density of 0.8 g/cm^3.
300 cm^3 of Liquid A is mixed with 200 cm^3 of Liquid B to make Liquid C.
Work out the density of Liquid C.

(Total for Question 11 is 3 marks)

Model Solution	Practice Perfect Questions

12 The grouped frequency table shows information about the weekly wages of 80 workers.

Weekly wage (£x)	Cumulative Frequency
$100 < x \leq 200$	8
$200 < x \leq 300$	15
$300 < x \leq 400$	37
$400 < x \leq 500$	10
$500 < x \leq 600$	7
$600 < x \leq 700$	3

(a) Complete the cumulative frequency table.

Weekly wage (£x)	Cumulative Frequency
$100 < x \leq 200$	
$100 < x \leq 300$	
$100 < x \leq 400$	
$100 < x \leq 500$	
$100 < x \leq 600$	
$100 < x \leq 700$	

(1)

(b) On the grid opposite, draw a cumulative frequency graph for your table.

(2)

(c) Use your graph to find an estimate for the median wage.

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(1)

(d) Use your graph to find an estimate for the interquartile range.

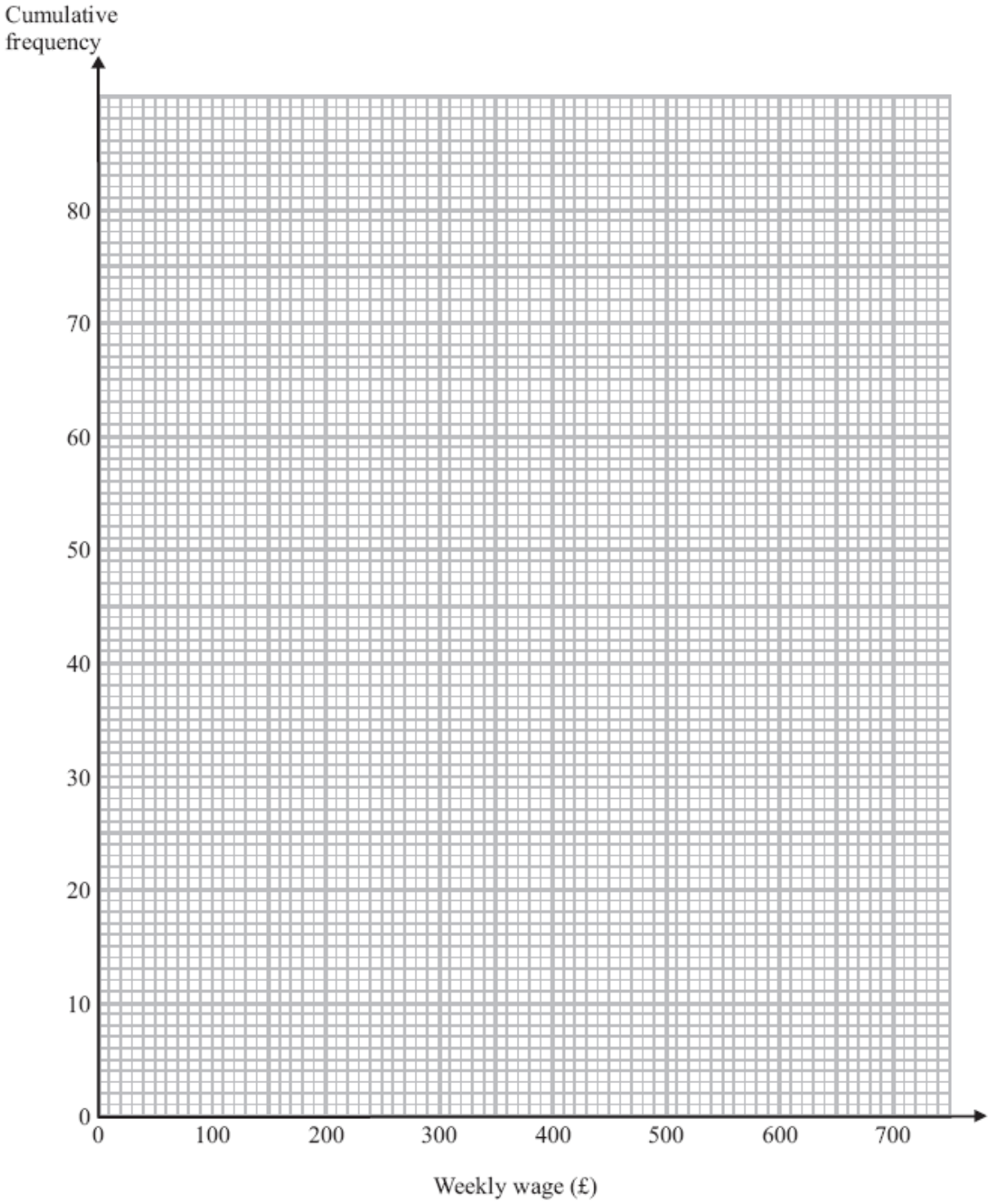
£ .....

(2)

(e) Use your graph to find an estimate for the number of workers with a weekly wage of more than £430

.....

(2)



(Total for Question 12 is 8 marks)

Model Solution	Practice Perfect Questions

13 Solve the quadratic inequality: $3x^2 - 5 \leq 14x$

Show clear algebraic working.

(Total for Question 13 is 3 marks)

Model Solution	Practice Perfect Questions
	

14 y is directly proportional to the square of t.
$y = 20$ when $t = 2$
t is inversely proportional to the square root of x.
$t = 3$ when $x = 4$
Find a formula for y in terms of x.
Give your answer in its simplest form.

(Total for Question 14 is 4 marks)

Model Solution	Practice Perfect Questions

15. Simplify fully

$$\frac{x^2 - 9}{2x^2 + 5x - 3}$$

(Total for Question 15 is 3 marks)

Model Solution	Practice Perfect Questions

16.

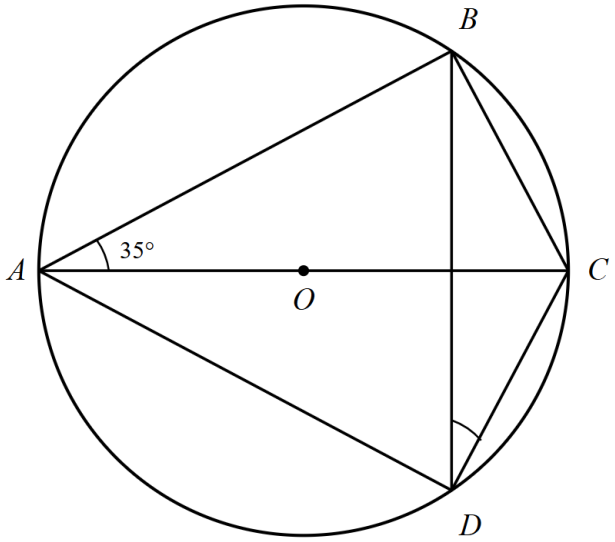


Diagram NOT accurately drawn

A, B, C, and D are points on the circumference of a circle, centre O.
AC is a diameter of the circle. Angle $BAC = 35°$.
Work out the size of angle BDC.
You must give reasons for each stage of your working.

(Total for Question 16 is 3 marks)

Model Solution	Practice Perfect Questions

17 The functions f and g are defined as:

$$f(x) = \frac{2x+1}{x-3},\ x \neq 3 \quad \text{and } g(x) = x^2 - 4$$

(a) Find $f^{-1}(x)$

(3)

(b) Express gf(x) as a single fraction in its simplest form.

(2)

(c) Solve g(x) = 21

(1)

(Total for Question 17 is 6 marks)

Model Solution	Practice Perfect Questions

18 Make y the subject of the formula:

$$p = \sqrt{\frac{2y + 5}{3y - k}}$$

(Total for Question 18 is 3 marks)

Model Solution	Practice Perfect Questions

19 The straight-line L has equation $2x + y = 7$.
The curve C has equation $x^2 + y^2 - 4x + 2y = 32$.
Find the coordinates of the points where L and C intersect.
Show clear algebraic working.

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(Total for Question 19 is 5 marks)

Model Solution	Practice Perfect Questions

20. By completing the square, find the coordinates of the turning point of the curve with equation $y = 3x^2 - 12x + 7$

You must show all your working.

(Total for Question 20 is 3 marks)

Model Solution	Practice Perfect Questions

21 Show that the following expression can be written in the form $a + b\sqrt{3}$, where a and b are integers:

$$\frac{(2+\sqrt{3})^2}{2-\sqrt{3}}$$

Show all stages of your working clearly.

(Total for Question 21 is 4 marks)

Model Solution	Practice Perfect Questions

22. The curve with equation $y = f(x)$ has a single turning point at $(-2, 5)$.

(a) Write down the coordinates of the turning point of the curve with equation:

$$y = -f(x + 3)$$

(2 marks)

(b) Write down the coordinates of the turning point of the curve with equation:

$$y = f(-x) + 3$$

(2 marks)

Model Solution	Practice Perfect Questions
Replacement recording pending Use written answers	

Q22 revised: translations and reflections. The playlist covers the previous graph question; replacement recording pending.

(Total for Question 22 is 4 marks)

TOTAL FOR PAPER = 80 MARKS