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MA1 Nov 2026 Paper 1 Best Guess Paper

FOCUS Grade 4/5

----- Disclaimer -----

We've analysed past exam trends to create this highly targeted revision paper. Because it is specifically built to help you secure a Grade 4 or 5 on the Higher Tier, we have deliberately stripped out some of the Grade 7+ content you would find in a real exam. This lets you focus your energy on the marks that matter most for your target grade—in fact, you can safely ignore Questions 20 onwards if you prefer!

A Word of Warning: Despite what you might see on TikTok or Instagram, it is impossible to perfectly predict an exam paper. When people claim they can, they are usually just trying to sell you something. Use this paper to test your knowledge and build confidence but remember there are no guarantees. Thorough revision across all topics is always your best strategy.

You can find a link to this paper and more completely free resources at www.mygrade9mathstutor.com.

The best way to prepare for the exams is to revise all topics

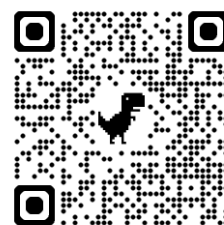
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If you find this paper help please support me, by
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The Playlist for Solutions can be found



<https://www.youtube.com/playlist?list=PLWKqjICISQUM>

The best way to work with this paper is work through it all, watch the Clip. If you get the question incorrect watch the clip again and then try the similar questions from the worksheets

**Answer ALL TWENTY-THREE questions.
Write your answers in the spaces provided.**

You must write down all the stages in 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
	

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.

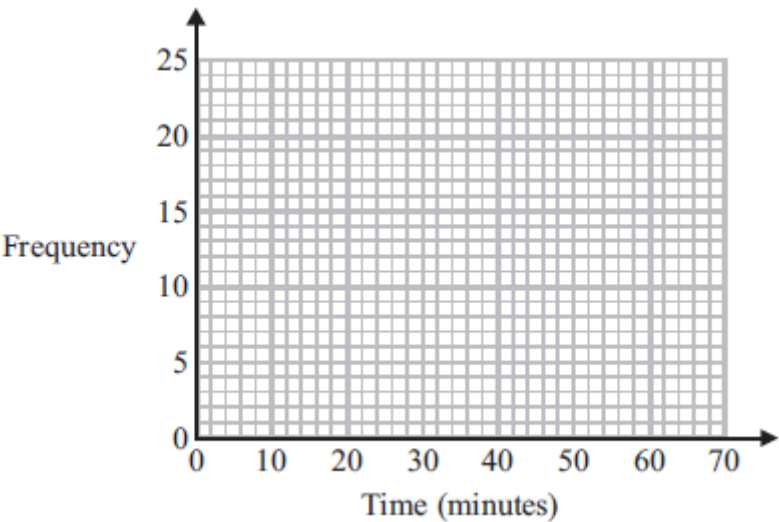
(Total for Question 2 is 2 marks)

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) Factorise $18x^2y - 24xy^2$

.....
(2)

(Total for Question 4 is 4 marks)

Model Solution	Practice Perfect Questions
	

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

.....
(2)

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

.....
(1)

(Total for Question 5 is 3 marks)

Model Solution	Practice Perfect Questions
	

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

(Total for Question 6 is 2 marks)

Model Solution	Practice Perfect Questions
	

7 $\mathcal{E} = \{\text{integers from 1 to 12}\}$
 $A = \{\text{factors of 12}\}$
 $B = \{\text{multiples of 3}\}$
(a) List the members of the set $A \cap B$.

.....
(2)

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

.....
(1)

(Total for Question 7 is 4 marks)

Model Solution	Practice Perfect Questions
	

8 In a sale, normal prices are reduced by 20%.
The sale price of a coat is £72.
Work out the normal price of the coat.

(2)

(Total for Question 8 is 2 marks)

Model Solution	Practice Perfect Questions
	

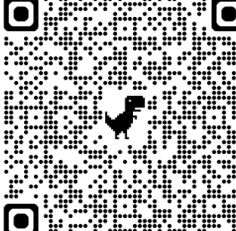
9 A circular metal disc has a radius of 19.8cm.
(a) Work out an estimate for the area of the disc.
You must show all your working.

(2 marks)

(b) Is your answer to part (a) an underestimate or an overestimate?
Give a reason for your answer.

(1 mark)

(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

$$\mathbf{a} = \begin{pmatrix} 4 \\ -3 \end{pmatrix} \quad \text{and} \quad \mathbf{b} = \begin{pmatrix} -2 \\ 5 \end{pmatrix}$$

(a) Work out $3\mathbf{a} + 2\mathbf{b}$ as a column vector.

(2)

The vector $\mathbf{c} = \begin{pmatrix} 10 \\ k \end{pmatrix}$, where k is an integer.

(b) Given that $2\mathbf{a} - \mathbf{b} = \mathbf{c}$, work out the value of k

(2)

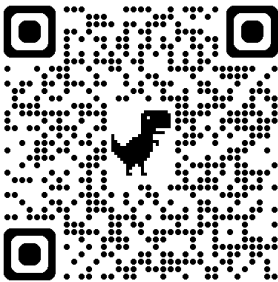
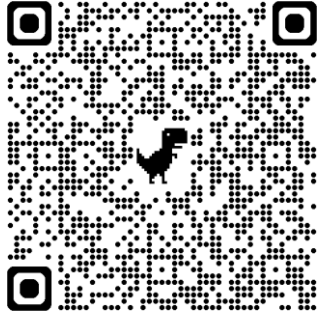
(c) Point P has coordinates $(3, -1)$.

The translation vector from P to Q is $\begin{pmatrix} -5 \\ 4 \end{pmatrix}$.

Write down the coordinates of point Q.

(1)

(Total for Question 11 is 5 marks)

Model Solution	Practice Perfect Questions
	

12. Solve the simultaneous equations:

$$3x + 2y = 16$$

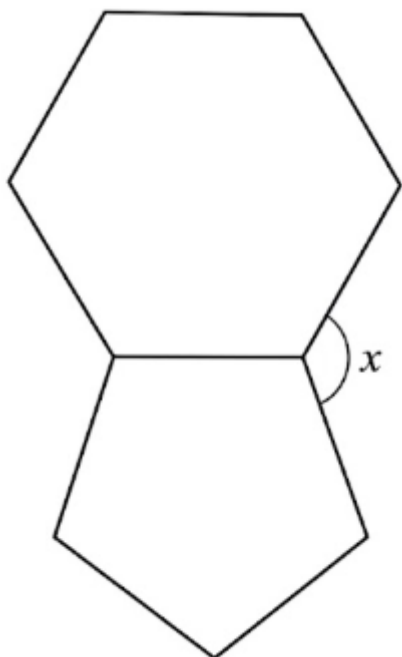
$$4x - 3y = 27$$

Show clear algebraic working

(Total for Question 12 is 3 marks)

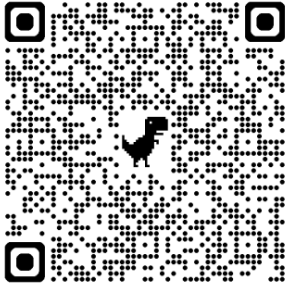
Model Solution	Practice Perfect Questions
	

13. The diagram shows a regular hexagon and a regular pentagon sharing a common edge.



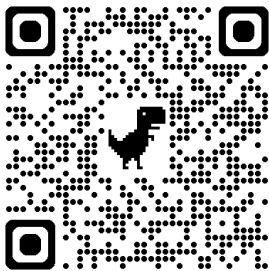
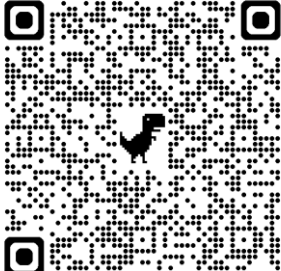
Work out the size of the obtuse interior angle between the outer edges.
You must show all your working.

(Total for Question 13 is 3 marks)

Model Solution	Practice Perfect Questions
	

14. There are only red counters, blue counters, and yellow counters in a bag.
 The ratio of red counters to blue counters is 3:4
 The ratio of blue counters to yellow counters is 2:5
 Sam says, "Exactly half of the counters in the bag are yellow."
 Is Sam correct? You must show your working and give a reason for your answer.

(Total for Question 14 is 5 marks)

Model Solution	Practice Perfect Questions
	

15 A charity shop sells books, DVDs, and vinyl records.

At the start of the day:

- The ratio of the number of books to the number of DVDs is 5:3
- The ratio of the number of DVDs to the number of records is 4:1

During the day:

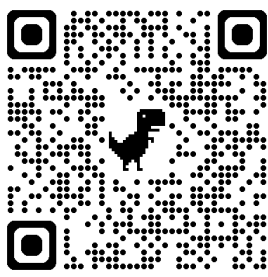
- 40% of the books are sold.
- $\frac{1}{6}$ of the DVDs are sold.
- No records are sold.

At the end of the day, there are 150 items left in total.

Work out how many items were sold altogether during the day.

You must show all your working.

(Total for Question 15 is 5 marks)

Model Solution	Practice Perfect Questions
	

16 Liquid A has a density of **1.2** g/cm³.
 Liquid B has a density of **0.8** g/cm³.
300 cm³ of Liquid A is mixed with **200** cm³ of Liquid B to make Liquid C.
 Work out the density of Liquid C.

(Total for Question 16 is 3 marks)

Model Solution	Practice Perfect Questions
	

- 17 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.

.....

(1)

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

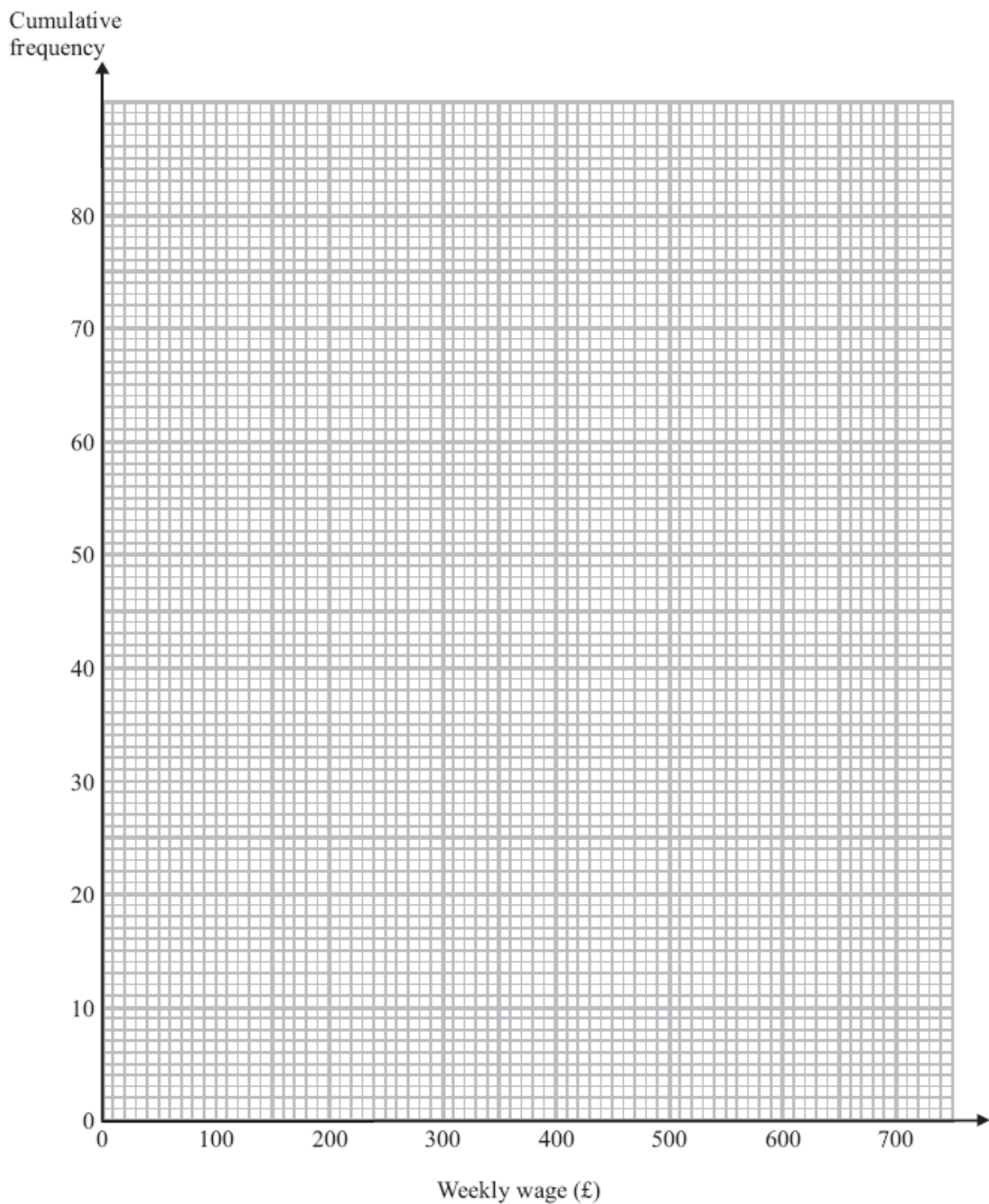
£

(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 17 is 8 marks)

Model Solution	Practice Perfect Questions
	

18 Use algebra to show that $0.\overline{381} = \frac{21}{55}$

(Total for Question 18 is 3 marks)

Model Solution	Practice Perfect Questions
	

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

(Total for Question 19 is 3 marks)

Model Solution	Practice Perfect Questions
	

20. Simplify fully

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

(Total for Question 20 is 3 marks)

Model Solution	Practice Perfect Questions
	

21 Make y the subject of the formula:

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

(Total for Question 21 is 3 marks)

Model Solution	Practice Perfect Questions
	

22. 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.

(3 marks)

Model Solution	Practice Perfect Questions
	

23 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.

(4 marks)

Model Solution	Practice Perfect Questions
	

TOTAL FOR PAPER = 80 MARKS