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1MA1 Nov 2026 Paper 2H Normal Higher · Question Paper

Disclaimer

This independent Best Guess practice resource prepares students for Pearson Edexcel GCSE Mathematics 1MA1 Higher Tier Paper 2 (calculator). It covers accessible and challenging Higher questions, not just one target grade.

This is not an official Pearson Edexcel paper or a guarantee of the questions that will appear. Revise the full specification.

Attempt all 21 questions, show your working, then use the matching mark scheme, worked solutions and linked worksheets and clips at www.mygrade9mathstutor.com.

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buying me a coffee



Video walkthrough



Calculator allowed · 21 questions · 80 marks · Suggested time: 1 hour 30 minutes.
Answer every question. Give appropriate units and show all stages of your working.

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

1. Here are the first five terms of an arithmetic sequence: 3, 7, 11, 15, 19.

(a) Find an expression, in terms of n , for the n -th term of this sequence

(2)

(b) Show that 87 is a term in this sequence

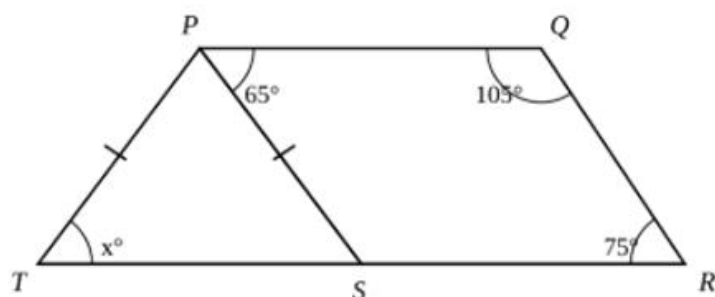
(1)

(Total for Question 1 is 3 marks)

Model Solution	Practice Perfect Questions
	

2

The diagram shows quadrilateral $PQRS$ and isosceles triangle PST , where $PT = PS$.



TSR is a straight line.

Work out the value of x .

Give a reason for each stage of your working.

(3)

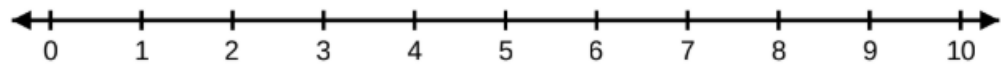
(Total for Question 2 is 3 marks)

Model Solution	Practice Perfect Questions
	

3. (a) Solve the inequality $3x - 5 > 10$

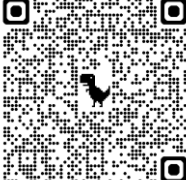
(2)

(b) Represent your solution on the number line below.



(1)

(Total for Question 3 is 3 marks)

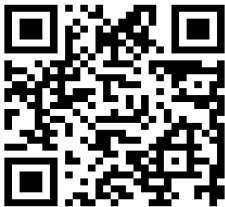
Model Solution	Practice Perfect Questions
	

4. The table gives information about the masses, m kg, of 50 luggage bags:

Mass (m kg)	Frequency
$0 < m \leq 5$	6
$5 < m \leq 10$	14
$10 < m \leq 15$	18
$15 < m \leq 20$	8
$20 < m \leq 25$	4

Calculate an estimate for the mean mass of the 50 luggage bags.

(Total for Question 4 is 3 marks)

Model Solution	Practice Perfect Questions
	

5 (a) Simplify $(2p^3)^5$

(2)

Model Solution	Practice Perfect Questions
	

(b) Expand and simplify $2p(4p - 3) - p(p - 4)$

(2)

Model Solution	Practice Perfect Questions
	

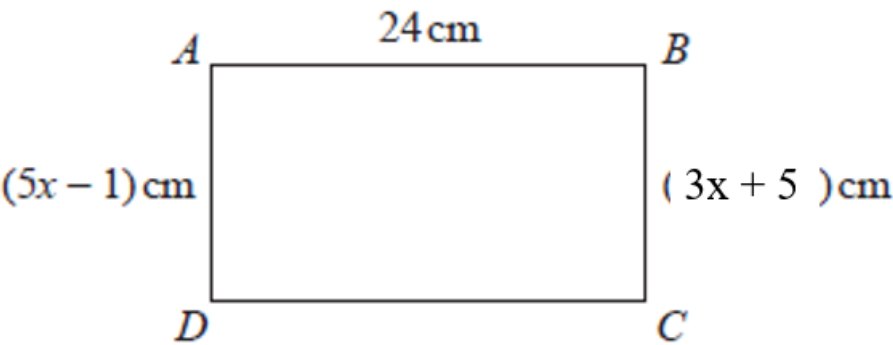
(c) Make c the subject of $t = 4c + d$

(2)

(Total for Question 5 is 6 marks)

Model Solution	Practice Perfect Questions
	

6. The diagram shows rectangle $ABCD$



Work out the Area of the rectangle.
Show your working clearly.

..... cm^2

(Total for Question 6 is 4 marks)

Model Solution	Practice Perfect Questions
	

7. John plants 720 bulbs in a garden.
He plants tulip bulbs, crocus bulbs and daffodil bulbs so that
number of tulip bulbs : number of crocus bulbs : number of daffodil bulbs = 7: 3: 2

- 40% of the tulip bulbs are for yellow flowers.
- $\frac{2}{3}$ of the crocus bulbs are for yellow flowers.
- $\frac{3}{4}$ of the daffodil bulbs are for yellow flowers.

Work out the total number of bulbs that are for yellow flowers.

.....

(Total for Question 7 is 4 marks)

Model Solution	Practice Perfect Questions
	

8. The value of a vehicle depreciates by 12% in its first year and by 15% in its second year. At the end of the second year, the vehicle is worth £11, 220. Calculate the original price of the vehicle.

(Total for Question 8 is 3 marks)

Clip



Practice Worksheet

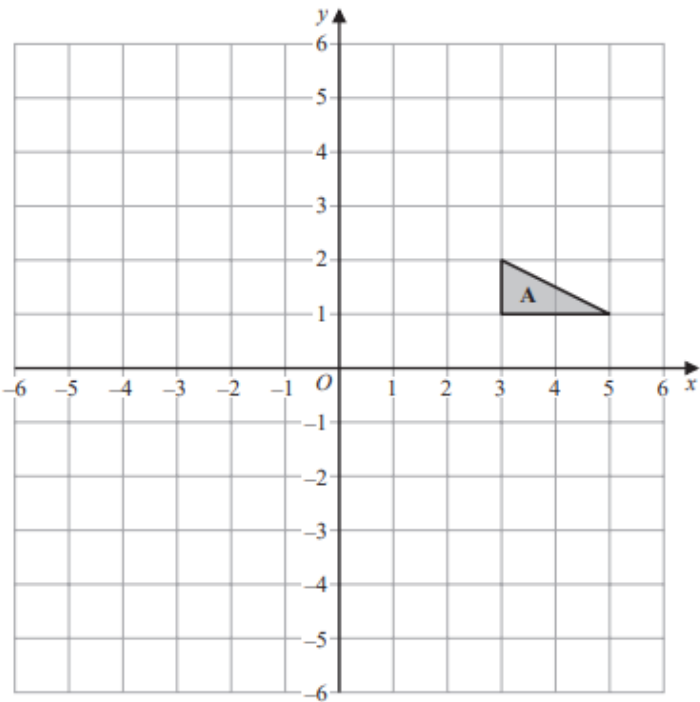


9 . A solid metal sphere has radius 2.4 cm.
The mass of the sphere is 385 grams.
Work out the density of the sphere.
Give your answer correct to 3 significant figures.

..... g / cm³
(Total for Question 9 is 3 marks)

Model Solution	Practice Perfect Questions
	

10



(a) Rotate triangle A 90° anticlockwise about the origin (0,0).
Label the image C.

(2)

Model Solution	Practice Perfect Questions

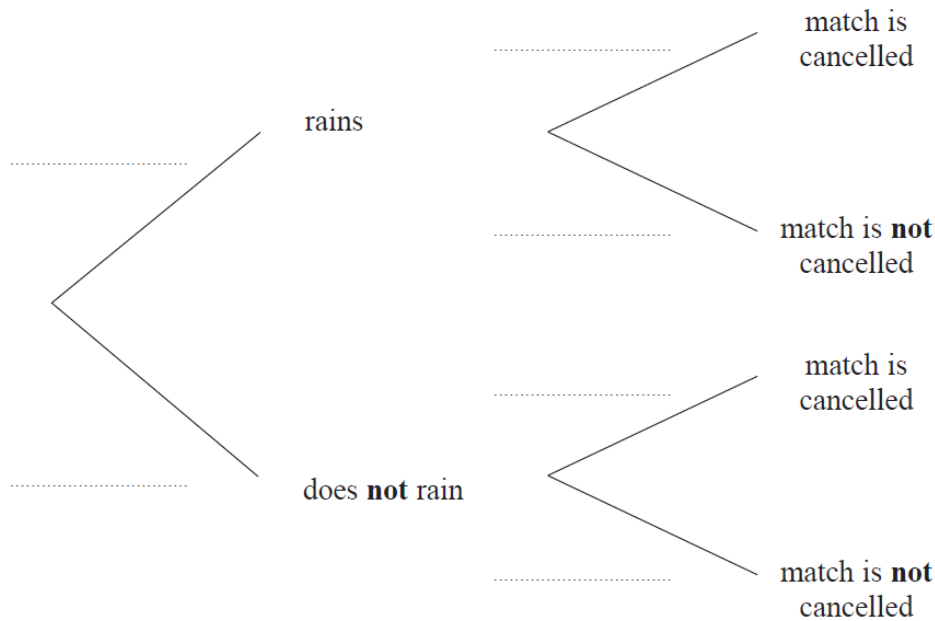
(b) Enlarge triangle A by scale factor 3 with centre (5,1).
Label the image B.

(2)

(Total for Question 10 is 4 marks)

Model Solution	Practice Perfect Questions

11. The probability that it will rain on a day in August is 0.35.
When it rains, the probability that my cricket match is cancelled is 0.8.
When it does not rain, the probability that my cricket match is not cancelled is 0.9.
(a) Complete the probability tree diagram for this information.



(2)

- (b) Work out the probability that, on a day in August, my cricket match is cancelled.

(2)

(Total for Question 11 is 4 marks)

Model Solution	Practice Perfect Questions
	

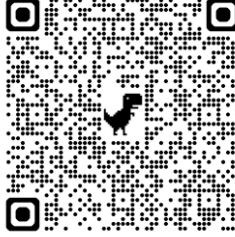
12. The straight line L_1 has the equation $3y - 2x = 12$.
The straight line L_2 is parallel to L_1 and passes through the point $(0,5)$.
Find the equation of L_2 .
Give your answer in the form $y = mx + c$.

.....
(Total for Question 12 is 3 marks)

Model Solution	Practice Perfect Questions
	

13. Solve $5x^2 - 6x - 3 = 0$.
Give your solutions correct to 3 significant figures.
Show your working clearly.

(3 marks)
(Total for Question 13 is 3 marks)

Model Solution	Practice Perfect Questions
	

14 Here are the first five terms of a quadratic sequence.

2 7 14 23 34

Find an expression, in terms of n , for the n th term of the sequence.

(Total for Question 14 is 3 marks)

Clip



Practice Worksheet

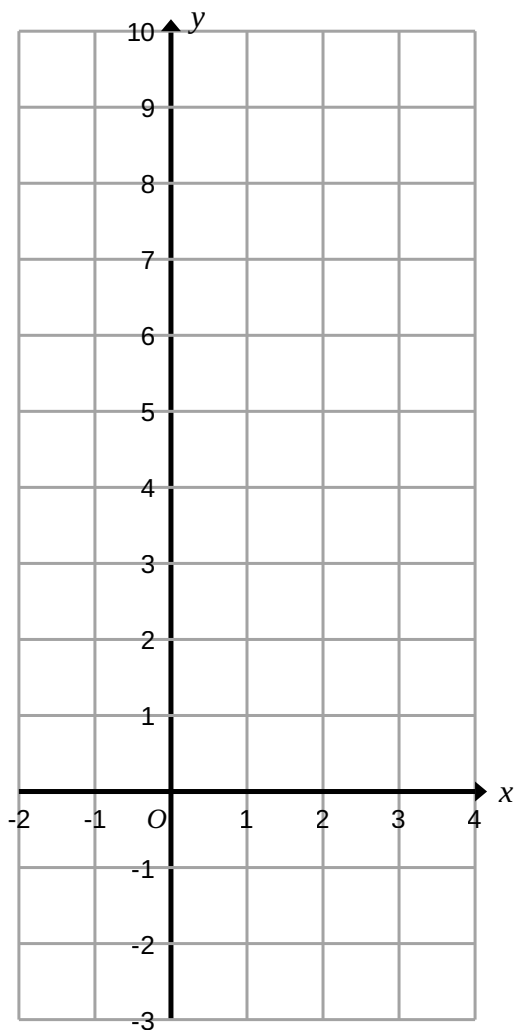


15 (a) On the grid, draw the graph of $y = -2x + 4$ for values of x from -2 to 3 . (3)

(b) Show, by shading on the grid, the region that satisfies **all three** of the inequalities:

$$x \geq 0 \quad y \geq -1 \quad y \leq -2x + 4$$

Label the region **R**. (2)



(Total for Question 15 is 5 marks)

Clip



Practice Worksheet



16. The functions f and g are defined such that:

$$f(x) = \frac{3x - 5}{2}$$

$$g(x) = 2x^2 + 1$$

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

(2 marks)

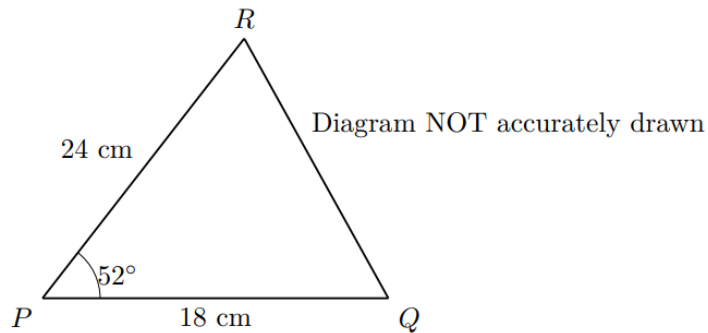
(b) Work out the value of $gf(3)$.

(2 marks)

(Total for Question 16 is 4 marks)

Model Solution	Practice Perfect Questions
	

17. The diagram shows triangle PQR with $PQ = 18\text{ cm}$, $PR = 24\text{ cm}$, and $\angle QPR = 52^\circ$



- (a) Calculate the length of QR. Give your answer correct to 3 significant figures

(3)

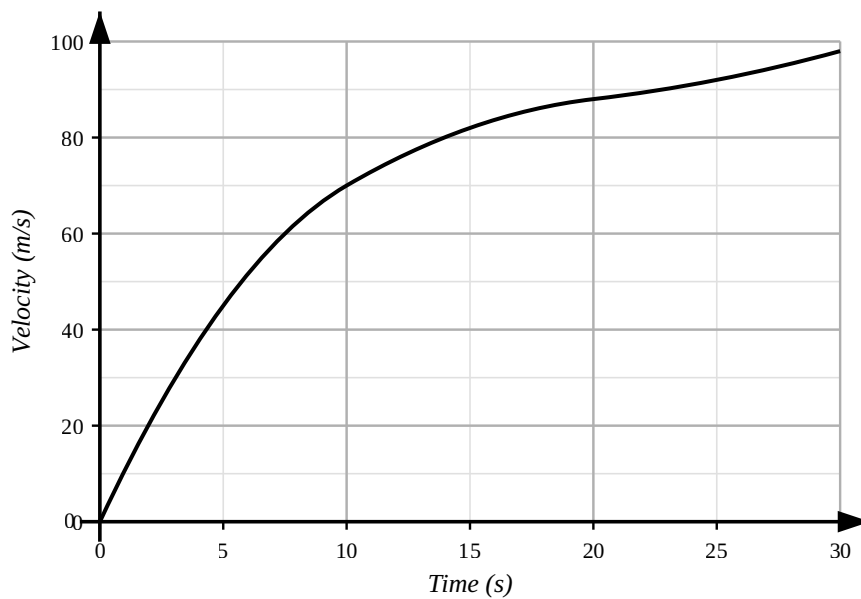
- (b) Calculate the area of triangle PQR. Give your answer correct to 3 significant figures.

(2)

(Total for Question 17 is 5 marks)

Clip	Area	Practice Worksheet
		

18. Here is a velocity-time graph for a rocket.



Work out an estimate for the distance the rocket travelled in the first 30 seconds.
Use 3 strips of equal width.

(Total for Question 18 is 3 marks)

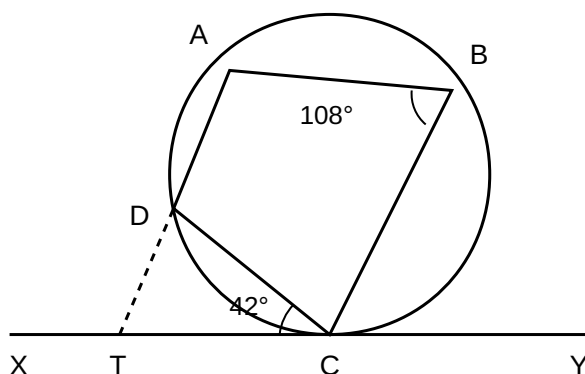
Clip



Practice Worksheet



19. Points A , B , C , and D lie on the circumference of a circle.



The straight line XY is a tangent to the circle at the point C .

The line AD is extended to meet the tangent at a point T .

Angle $DCT = 42^\circ$ and Angle $ABC = 108^\circ$.

Calculate the size of Angle ATC .

You must give a formal geometrical reason for each stage of your working.

(Total for Question 19 is 3 marks)

Clip



Practice Worksheet



20. A box contains n counters. 8 of the counters are red and the rest are blue. Two counters are taken at random from the box without replacement. Given that the probability that both counters are the same colour is $\frac{7}{15}$
- (a) Show that $n^2 - 31n + 240 = 0$.

(3)

- (b) Solve $n^2 - 31n + 240 = 0$ to find the possible values of n .

(2)

(Total for Question 20 is 5 marks)

Clip



Practice Worksheet



21. In triangle OAB , $\vec{OA} = 6\mathbf{a}$ and $\vec{OB} = 9\mathbf{b}$.
 P is the point on OA such that $OP:PA = 1:2$.
 Q is the point on AB such that $AQ:QB = 2:1$.

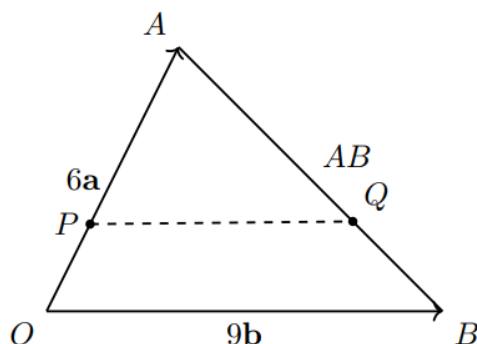


Diagram NOT accurately drawn

- (a) Find $\vec{PQ}$ in terms of $\mathbf{a}$ and $\mathbf{b}$.

(2)

- (b) Use a vector method to prove that PQ is parallel to OB , and state the ratio of the length of PQ to the length of OB .

(4)

(Total for Question 21 is 6 marks)

Clip



Practice Worksheet

