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4MA1 Nov 2026 Paper 2 Best Guess Paper

Higher · Standard

Disclaimer

This independently compiled practice paper is designed for students preparing for Pearson Edexcel International GCSE Mathematics A (4MA1), Higher Tier, Paper 2H. It includes accessible and challenging Higher Tier questions for standard exam practice. A calculator may be used.

It is not an official Pearson Edexcel examination paper and is not endorsed by Pearson. 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.

Attempt all questions, use the matching mark scheme and worked solutions, and show every stage of your working. The best preparation is to revise the full specification, using the free worksheets and clips at www.mygrade9mathstutor.com.

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Question Paper

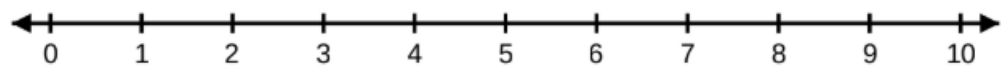
23 questions · 100 marks

Calculator allowed · 2 hours

Calculator allowed · 23 questions · 100 marks · Suggested time: 2 hours.
Answer every question and show all stages of your working.

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

1. (a) Solve the inequality $3x - 5 > 10$
- (b) Represent your solution on the number line below.



(Total for Question 1 is 3 marks)

Model Solution	Practice Perfect Questions
	

2. A plane has a length of 78 metres.
- A scale model is made of the plane.
- The scale of the model is 1: 200
- Work out the length of the scale model.
- Give your answer in centimetres.

..... cm

(Total for Question 2 is 3 marks)

Model Solution	Practice Perfect Questions
	

3 Change a speed of 90 kilometres per hour to a speed in metres per second.
 Show your working clearly.

..... m/s

(Total for Question 3 is 3 marks)

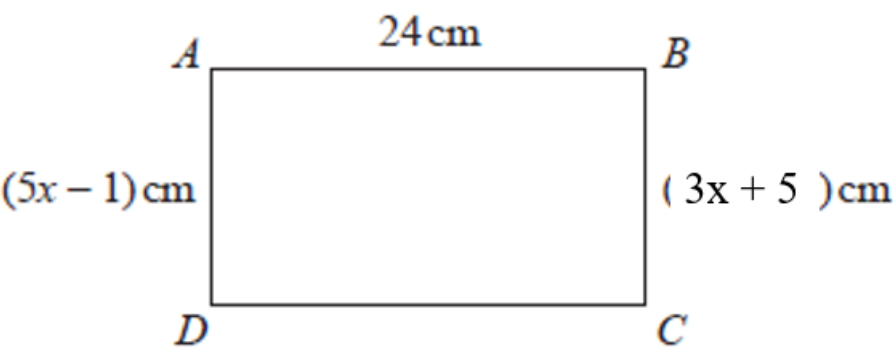
Model Solution	Practice Perfect Questions
	

4 . In a spring sale, the normal price of a television is reduced by 20%.
The sale price of the television is £344.
Work out the normal price of the television.

(Total for Question 4 is 2 marks)

Model Solution	Practice Perfect Questions
	

5. The diagram shows rectangle $ABCD$



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

..... cm^2

(Total for Question 5 is 4 marks)

Model Solution	Practice Perfect Questions
	

6. 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

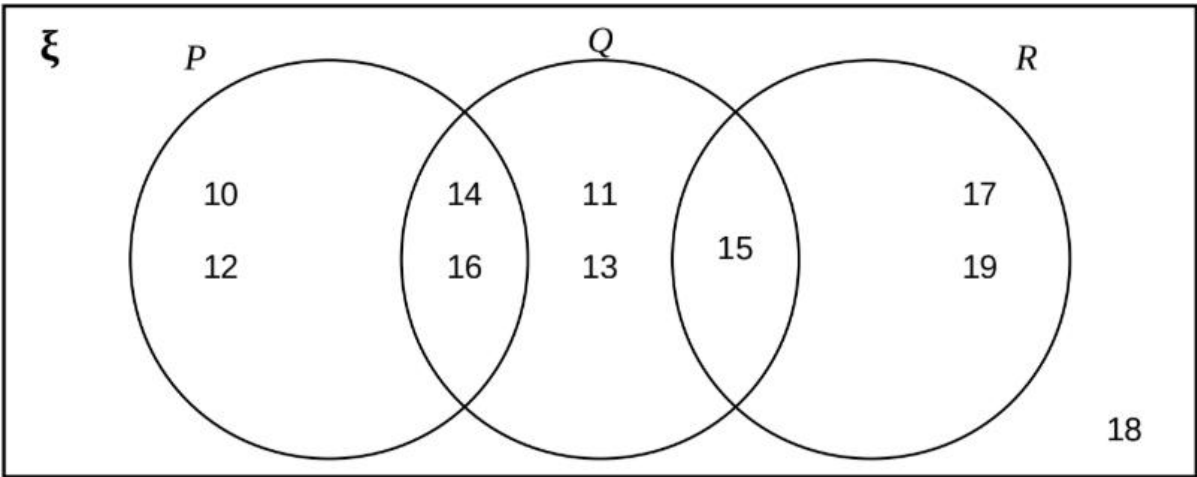
- 40% of the tulip bulbs are for yellow flowers.
- $\frac{2}{3}$ of the crocus bulbs are for yellow flowers.
- $\frac{3}{4}$ of the daffodil bulbs are for yellow flowers.

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

.....
(Total for Question 6 is 5 marks)

Model Solution	Practice Perfect Questions
	

7 Here is a Venn diagram.



(a) Write down the numbers that are in the set

(i) Q

.....

(ii) $P \cup R$

.....

Alice writes down the statement $P \cap R = \emptyset$

(b) Is Alice's statement correct?

You must give a reason for your answer.

.....

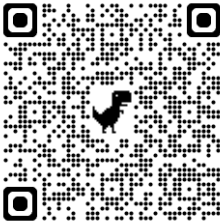
.....

One of the numbers in the Venn diagram is picked at random.

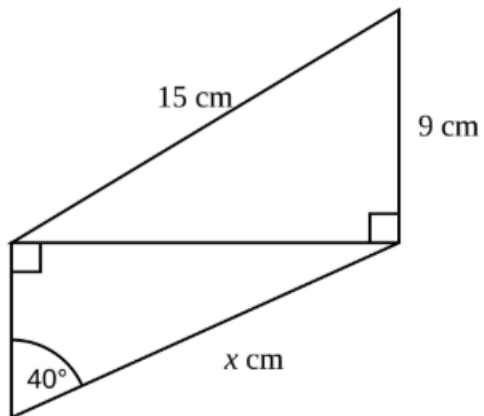
(c) Find the probability that this number is in set Q' .

.....

(Total for Question 7 is 5 marks)

Model Solution	Practice Perfect Questions
	

8 . Work out the value of x .
Give your answer to 1 decimal place.



(Total for Question 8 is 4 marks)

Model Solution	Practice Perfect Questions
	

9 (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
	

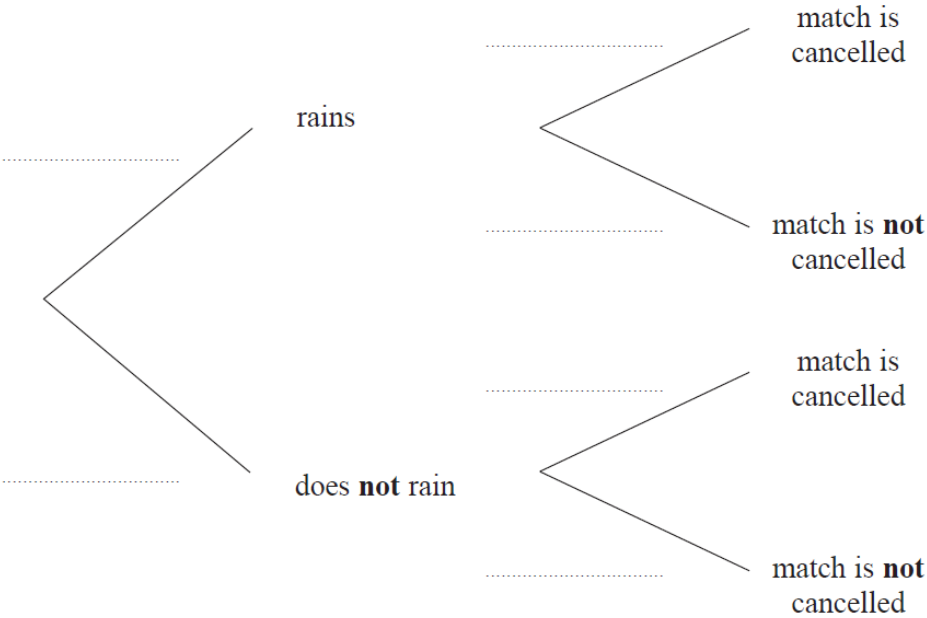
(c) Solve $\frac{3x-2}{4} = 5 - x$.
Show clear algebraic working

$x =$
(3)

Model Solution	Practice Perfect Questions
	

(Total for Question 9 is 7 marks)

10. 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)

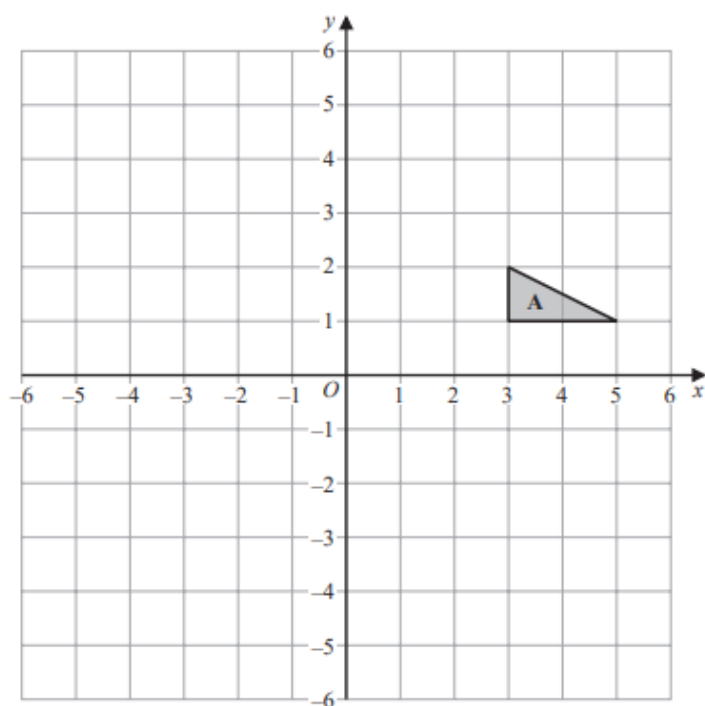
- (b) Work out the probability that, on a day in August, my cricket match is cancelled.

(3)

(Total for Question 10 is 5 marks)

Model Solution	Practice Perfect Questions
	

11



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

(2)

Model Solution	Practice Perfect Questions

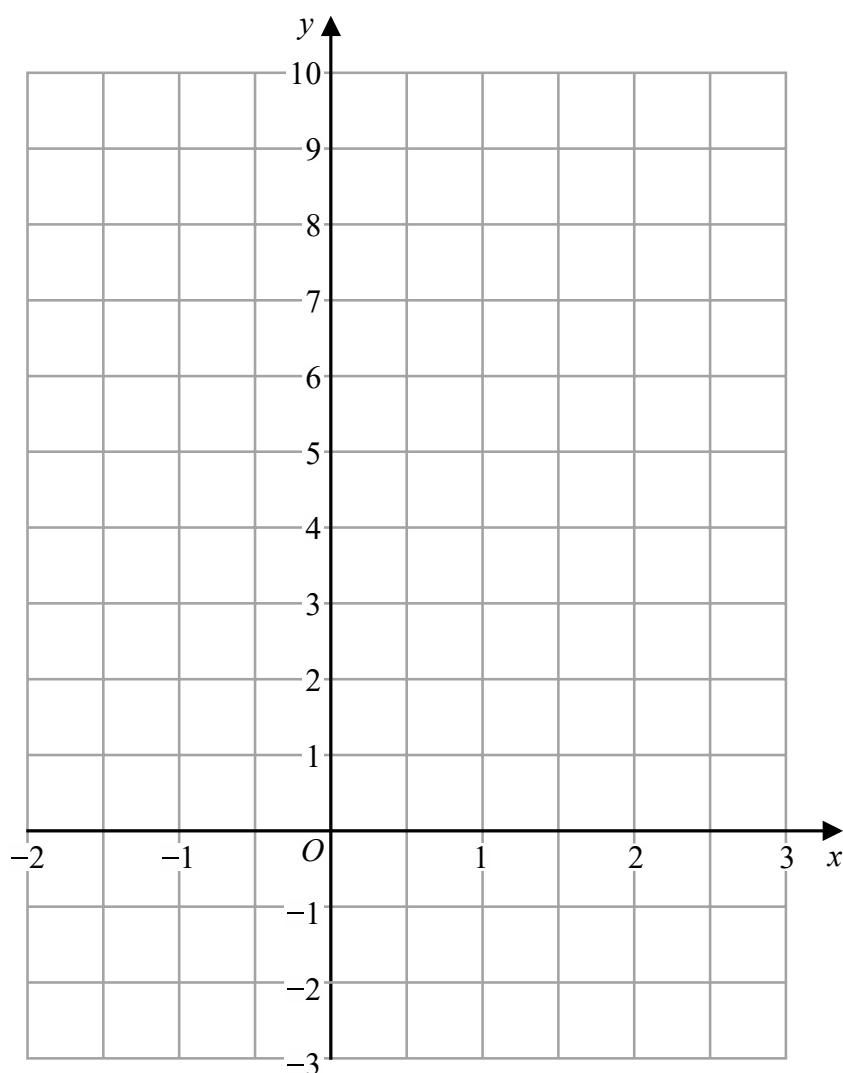
(b) Enlarge triangle A by scale factor -2 with centre (3,0).
Label the image B.

(3)

(Total for Question 11 is 5 marks)

Model Solution	Practice Perfect Questions

12. 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

$$x \geq 0$$

$$y \geq -1$$

$$y \leq -2x + 4$$

Label the region **R**.

(2)

(Total for Question 12 is 5 marks)

Model Solution	Practice Perfect Questions

13.

The diagram shows a plan of a patio.

The edge of the patio consists of two semicircles and two straight lines.

Each semicircle has centre O .

The diameter of the large semicircle is 10 m.

The diameter of the small semicircle is 6 m.

Paving Stones

£24 per m^2

Jo is going to cover the patio with paving stones.

Jo has a budget of £1200.

Has Jo got enough money to buy all the paving stones she needs?

You must show all your working.

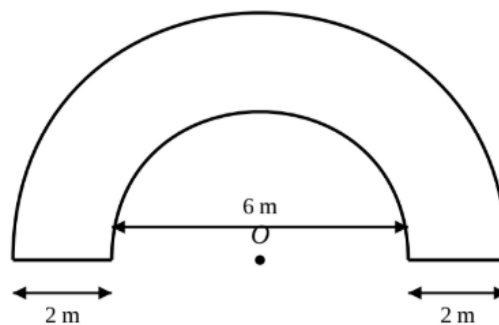


Diagram NOT
accurately drawn

(Total for Question 13 is 5 marks)

Model Solution	Practice Perfect Questions

14. (a) Find the value of k when $5^k = 1$.

$k = \dots\dots\dots$
(1)

$$\frac{27}{3^8} = 3^m$$

(b) Find the value of m .

$m = \dots\dots\dots$
(2)

$$(7^{-4})^3 \times 7^5 = 7^p$$

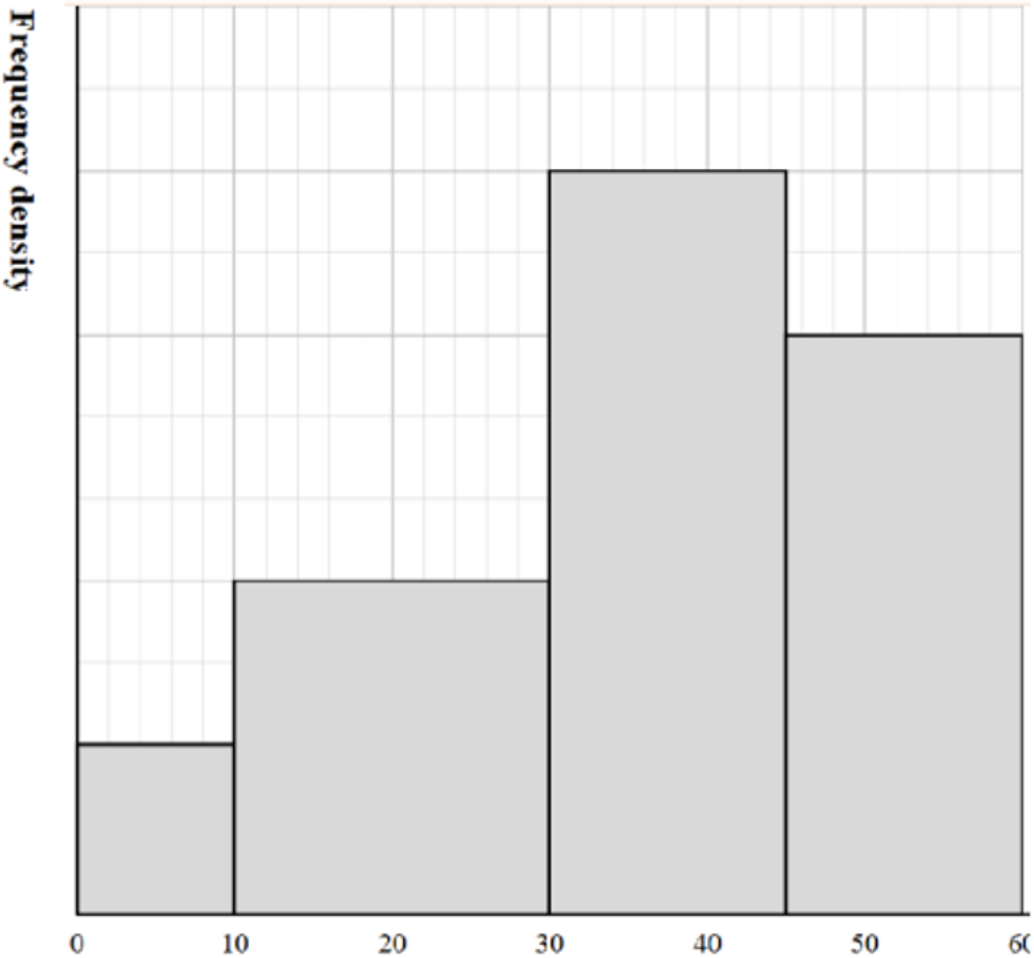
(c) Find the value of p .

$P = \dots\dots\dots$
(2)

(Total for Question 14 is 5 marks)

Model Solution	Practice Perfect Questions
	

15. The histogram gives information about the weights, in grams, of some strawberries.



One of these strawberries is chosen at random. Work out an estimate for the probability that the strawberry has a weight between 25 grams and 50 grams.

.....

(Total for Question 15 is 4 marks)

Model Solution	Practice Perfect Questions

16 Solid **A** and solid **B** are mathematically similar.
 The total surface area of solid **A** is $45\pi \text{ cm}^2$.
 The total surface area of solid **B** is $80\pi \text{ cm}^2$.
 The volume of solid **A** is 810 cm^3 .
 Calculate the volume of solid **B**.

.....
 (Total for Question 16 is 4 marks)

Model Solution	Practice Perfect Questions
	

17. A ship leaves a port A and sails 15 km on a bearing of 045° to a buoy B .
 From B , the ship sails 20 km on a bearing of 135° to a lighthouse C .
 Calculate the bearing of C from A .
 Give your answer correct to 1 decimal place.

(Total for Question 17 is 4 marks)

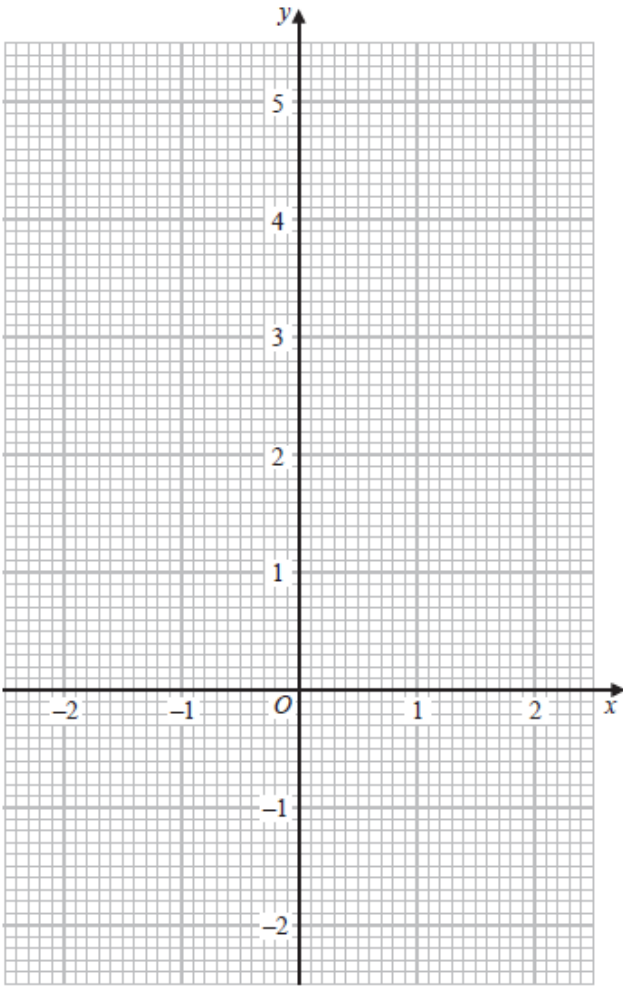
Model Solution	Practice Perfect Questions
	

18. a) Complete the table of values for $y = x^3 - 3x + 1$

x	-2	-1	-0.5	0		1	1.5	2
y		3	2.4			-1	-0.1	

(2)

(b) On the grid, draw the graph of $y = x^3 - 3x + 1$ for values of x from -2 to 2



(2)

(c) By drawing a suitable straight line on the grid, use your graph to find an estimate for the solution of $x^3 - 3x - 1 = 0$
Give your answer correct to one decimal place.

(2)

Model Solution	Practice Perfect Questions
	

(Total for Question 18 is 6 marks)

19. (a) Express $f(x) = 2x^2 - 12x + 23$ in the form $a(x + b)^2 + c$, where a , b , and c are integers to be found.

(3)

(b) Hence, write down the coordinates of the turning point on the curve with equation $y = 2x^2 - 12x + 23$.

(1)

(Total for Question 19 is 4 marks)

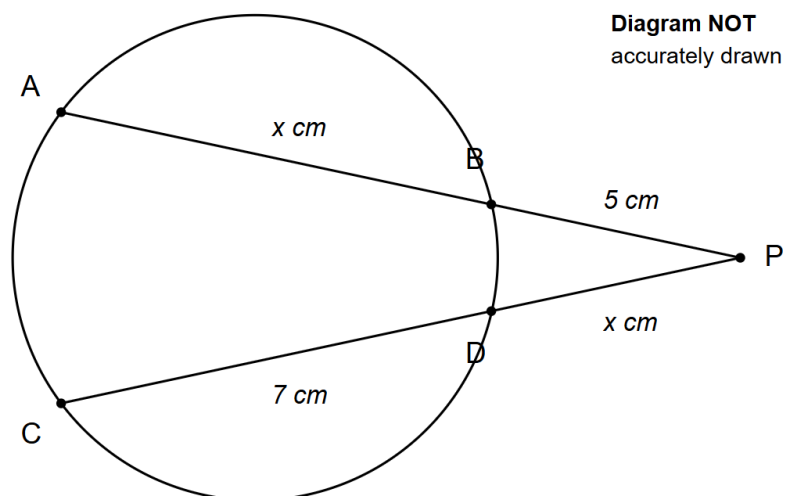
Model Solution	Practice Perfect Questions
	

20. Prove algebraically that the sum of the squares of any two consecutive odd integers is always 2 more than a multiple of 8.

.....
(Total for Question 20 is 4 marks)

Model Solution	Practice Perfect Questions
	

21. A , B , C and D are points on a circle.



The chord AB and the chord CD are extended to intersect at the point P outside the circle.

$AB = x$ cm and $BP = 5$ cm.

$CD = 7$ cm and $DP = x$ cm.

Calculate the length of the chord AB .

Give your answer correct to 3 significant figures.

Show your working clearly.

(Total for Question 21 is 4 marks)

Model Solution	Practice Perfect Questions

22. The circle C has equation $x^2 + y^2 = 65$.

The point $A(4, -7)$ lies on the circle C .

Find the equation of the tangent to the circle at the point A .

Give your answer in the form $ax + by + c = 0$, where a , b , and c are integers.

.....
(Total for Question 22 is 4 marks)

Model Solution	Practice Perfect Questions
	

23. A particle P moves along a straight line.

The displacement, s metres, of P from a fixed point O at time t seconds is given by

$$s = t^3 - 12t^2 + 45t$$

Find the total distance travelled by the particle in the first 7 seconds of its motion.

(Total for Question 23 is 5 marks)

Model Solution	Practice Perfect Questions
	

TOTAL FOR PAPER = 100 MARKS