

# PINPOINT LEARNING

## PAPER THREE REVISION PACKS

41\_to\_62\_Percent\_Pinpoint\_AI\_Pack

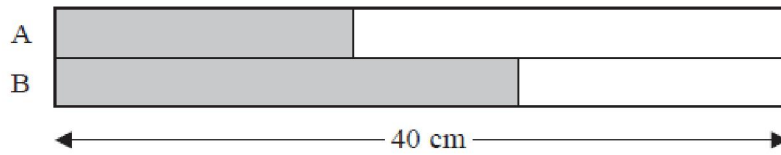
Time Allocation = 90mins , Max = 80 Marks

Calculated Grade Boundaries:

Grade	Marks
4-	12
4	23
4+	35
5-	46
5	58
5+	69
6-	80

# Question 1 (AO3): 58% of students got this right (4 marks)

1. Here is a rectangle.



The rectangle has been divided into two strips, A and B.  
The strips have the same width.

$\frac{2}{5}$  of strip A is shaded.

$\frac{5}{8}$  of strip B is shaded.

The length of the rectangle is 40 cm.

What fraction of the rectangle is **not** shaded?

.....

**(Total 4 marks)**

## Question 2 (AO1): 58% of students got this right (3 marks)

4. The diagram shows 3 sides of a regular polygon.

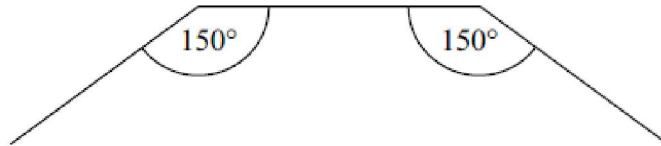


Diagram **NOT**  
accurately drawn

Each interior angle of the regular polygon is  $150^\circ$ .

Work out the number of sides of the regular polygon.

.....

**(Total 3 marks)**

---

## Question 3 (AO3): 58% of students got this right (5 marks)

- \*5 James bought  $x$  candy bars at the store.  
Lily bought twice as many candy bars than James.  
Harry bought 3 candy bars more than James.

One candy bar costs £2.  
In total, they paid £46.

Determine how many candy bars each person bought.  
Show all steps in your calculations.

**(Total 5 marks)**

---



## Question 4 (AO3): 58% of students got this right (3 marks)

- 2 Emily buys a pack of 12 bottles of water.  
The pack costs £5.64.  
Emily sells all 12 bottles for 50p each.  
Work out Emily's percentage profit.  
Give your answer correct to 1 decimal place.

## Question 5 (AO2): 55% of students got this right (2 marks)

10. The  $n$ th term of a sequence is  $n^2 + 4$

Alex says

“The  $n$ th term of the sequence is always a prime number when  $n$  is an odd number.”

Alex is wrong.

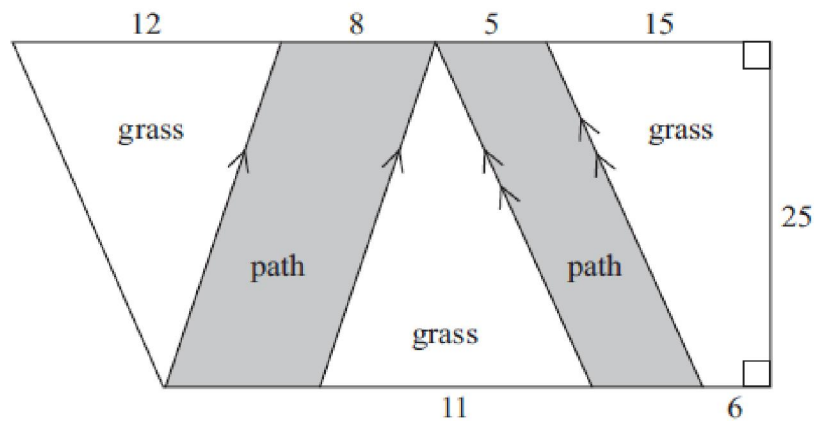
Give an example to show that Alex is wrong.

## Question 6 (AO2): 54% of students got this right (4 marks)

5. David is planning his garden.

There will be two paths in the garden.  
The rest of the garden will be grass.

The diagram shows David's plan for his garden.



All measurements on the diagram are given in feet.  
Work out the total area of the grass.

**(Total 4 marks)**

Question 7 (AO1): 52% of students got this right (2 marks)

9



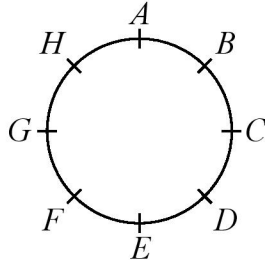
**Construct** the perpendicular bisector of the line segment  $CD$  using a ruler and compasses.  
Show all your construction lines.

**(Total 2 marks)**



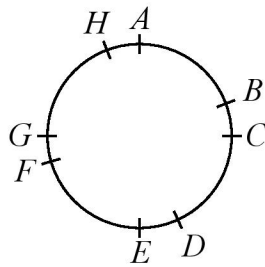
## Question 8 (AO2): 52% of students got this right (1 marks)

- 3 Hasmeet walks once round a circle with diameter 80 metres.



There are 8 points equally spaced on the circumference of the circle.

Four of the points are moved, as shown in the diagram below.



Hasmeet walks once round the circle again.

- (b) Has the mean distance that Hasmeet walks between one point and the next point changed?

You must give a reason for your answer.

## Question 9 (AO1): 49% of students got this right (2 marks)

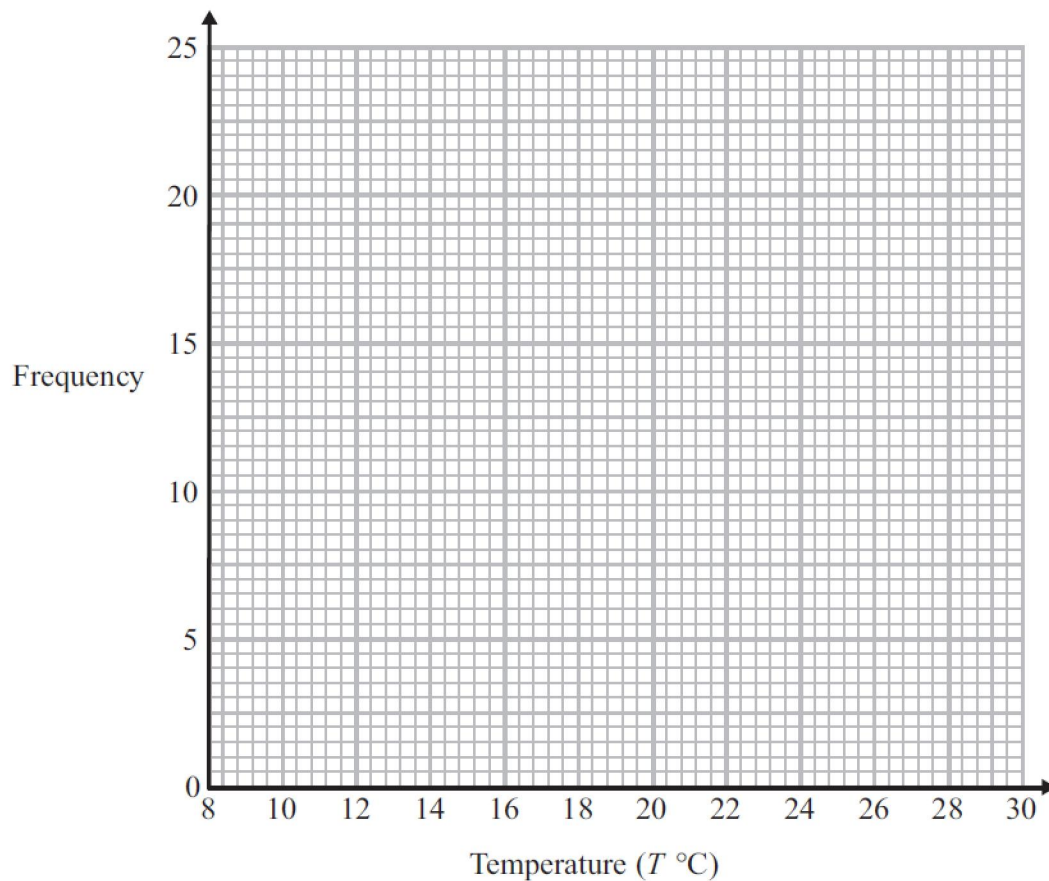
14. The table gives information about the temperature,  $T$  °C, at noon in a town for 50 days.

Temperature ( $T$ °C)	Frequency
$8 < T \leq 12$	6
$12 < T \leq 16$	8
$16 < T \leq 20$	13
$20 < T \leq 24$	21
$24 < T \leq 28$	2

- (a) Write down the modal class interval.

**RETEST QUESTION**

- (c) Draw a frequency polygon for the information in the table.



(2)

## Question 10 (AO2): 48% of students got this right (3 marks)

- 2 In London, 1 litre of petrol costs 108.9p  
In New York, 1 US gallon of petrol costs \$2.83.

1 US gallon = 3.785 litres  
£1 = \$1.46

In which city is petrol better value for money, London or New York?  
You must show your working.

## Question 11 (AO3): 48% of students got this right (4 marks)

15. A cinema sells adult tickets and child tickets.

The total cost of 3 adult tickets and 1 child ticket is £30.

The total cost of 1 adult ticket and 3 child tickets is £22.

Work out the cost of an adult ticket and the cost of a child ticket.

adult ticket £.....

child ticket £.....

**(Total for Question 15 is 4 marks)**

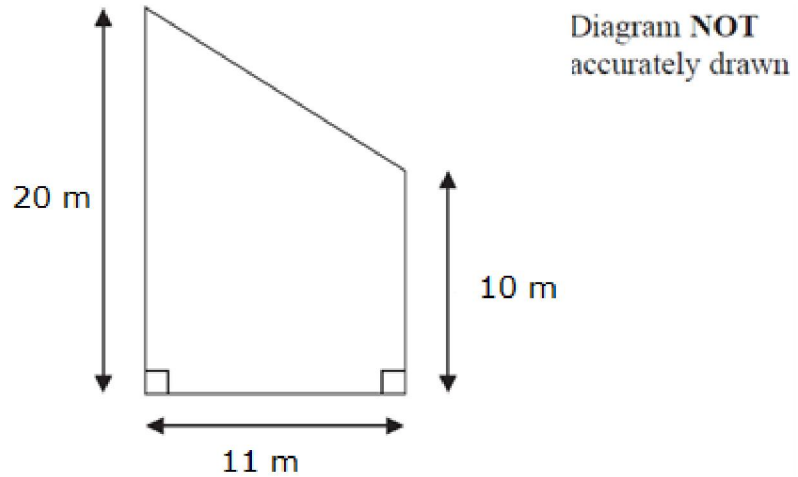


## Question 12 (AO1): 48% of students got this right (3 marks)

- 3** A gold bar has a mass of 12.5 kg.  
The density of gold is  $19.3 \text{ g/cm}^3$   
Work out the volume of the gold bar.  
Give your answer correct to 3 significant figures.

## Question 13 (AO2): 47% of students got this right (5 marks)

7 Given is part of a playground.



This part of the playground is shaped like a trapezium.  
Around the edge of this part of the playground needs to be put up a fence.

There is 60 m of fence available.

Do they have enough fence available?  
Show all steps in your calculations.

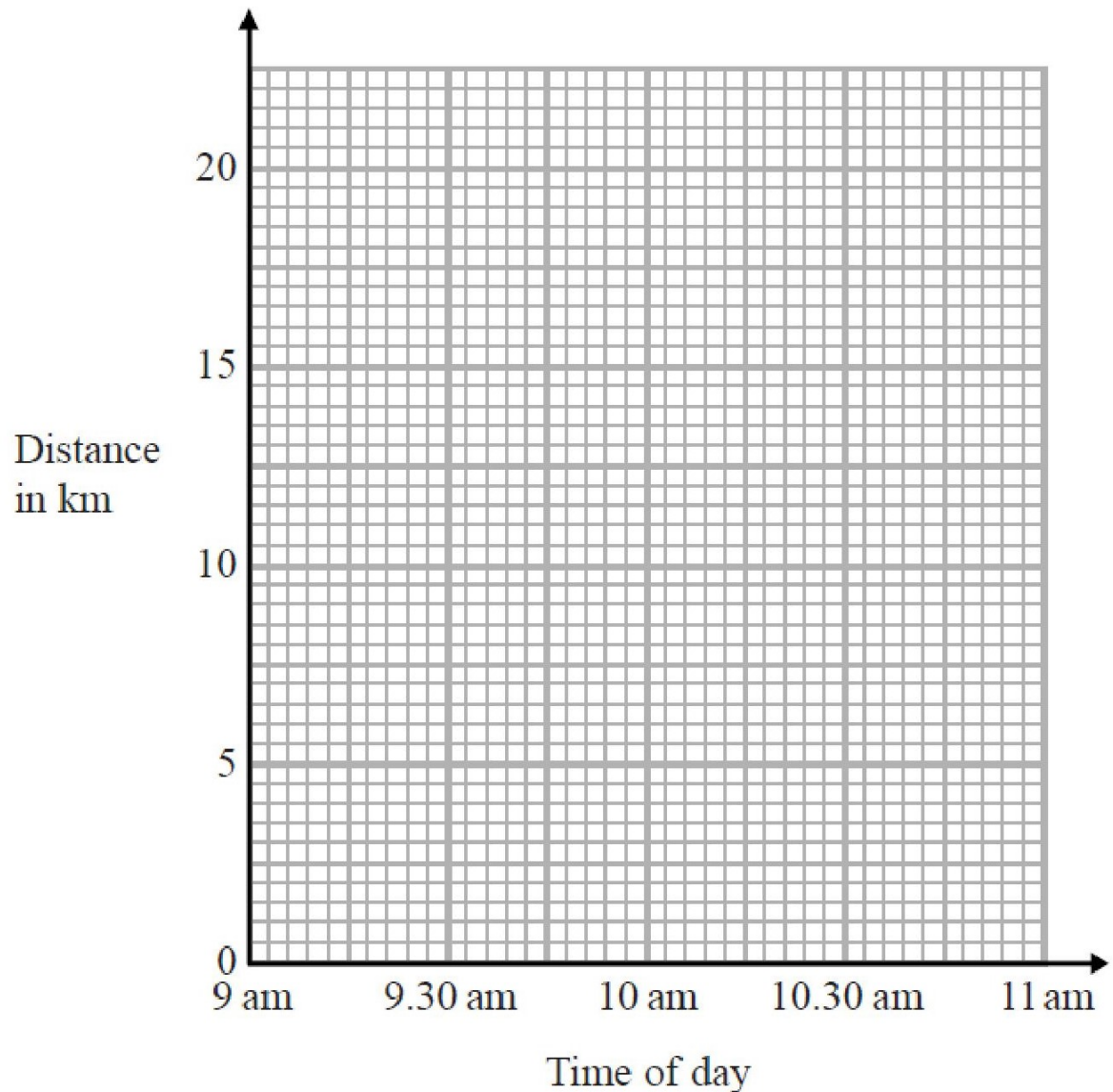
## Question 14 (AO2): 47% of students got this right (5 marks)

5 At 9 am, Bradley began a journey on his bicycle.

From 9 am to 9.36 am, he cycled at an average speed of 15 km/h.

From 9.36 am to 10.45 am, he cycled a further 8 km.

(a) Draw a travel graph to show Bradley's journey.



From 10.45 am to 11 am, Bradley cycled at an average speed of 18 km/h.

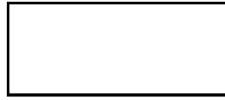
(b) Work out the distance Bradley cycled from 10.45 am to 11 am.

Question 15 (AO1): 44% of students got this right (1 marks)

**12**     *(a)* Find the reciprocal of 2.5.

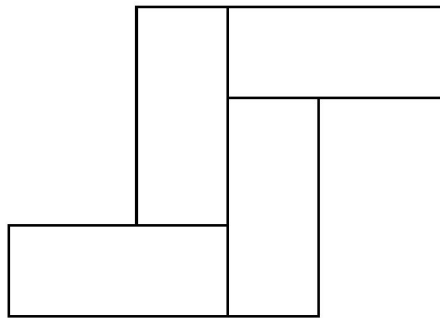
## Question 16 (AO2): 44% of students got this right (5 marks)

6 Here is a rectangle.



The length of the rectangle is 7 cm longer than the width of the rectangle.

4 of these rectangles are used to make this 8-sided shape.

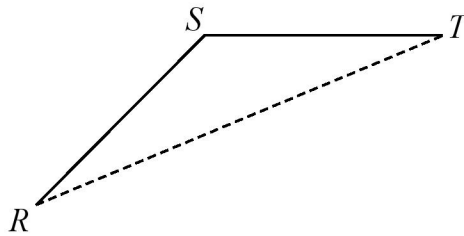


The perimeter of the 8-sided shape is 70 cm.

Work out the area of the 8-sided shape.

Question 18 (AO2): 42% of students got this right (3 marks)

12

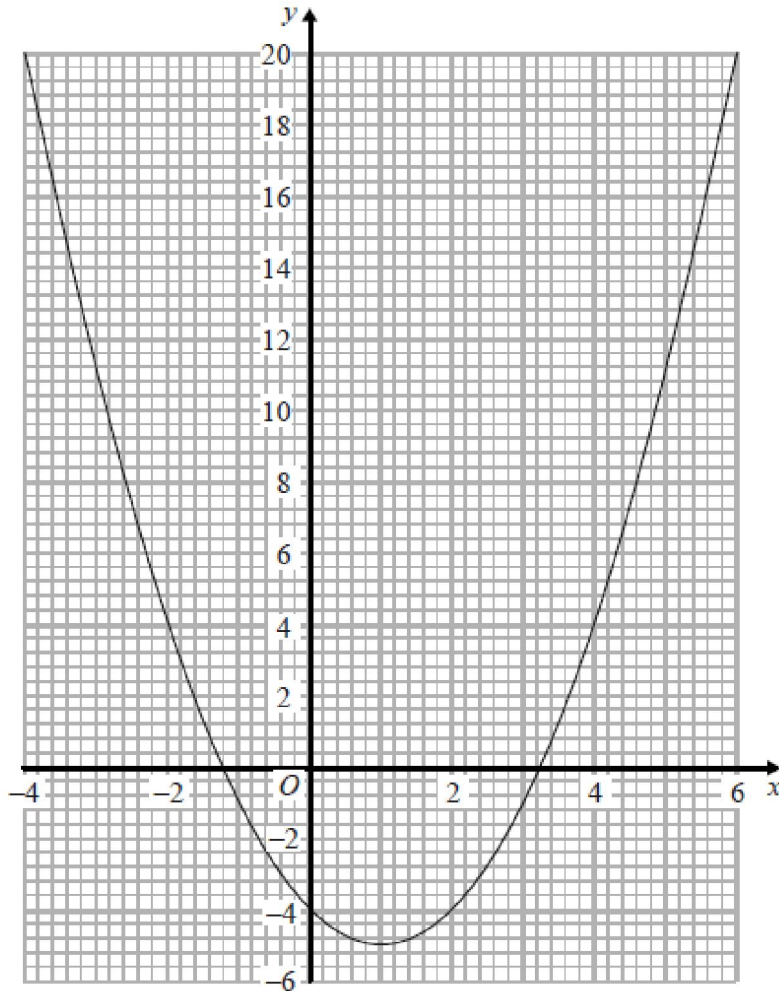


$RS$  and  $ST$  are 2 sides of a regular 12-sided polygon.  
 $RT$  is a diagonal of the polygon.

Work out the size of angle  $STR$ .  
You must show your working.

Question 19 (AO1): 42% of students got this right (3 marks)

4. Here is the graph of  $y = x^2 - 2x - 4$



(a) Write down estimates for the roots of  $x^2 - 2x - 4 = 0$

.....  
(2)

(b) Write down the coordinates of the turning point of  $y = x^2 - 2x - 4$

(..... , .....)  
(1)

(Total for Question 4 is 3 marks)

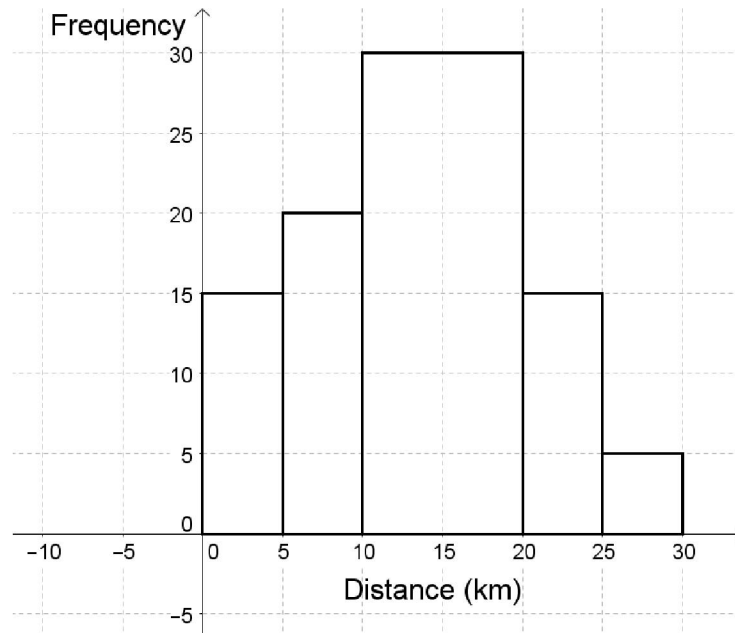
Question 20 (AO1): 42% of students got this right (3 marks)

14 Prove algebraically that the recurring decimal  $0.4\dot{5}\dot{7}$  can be written as  $\frac{151}{330}$



## Question 21 (AO1): 41% of students got this right (2 marks)

- 26 The histogram contains information about the distance a sample of people has to travel to work.



- (a) Complete the frequency table using the histogram.

Distance ( $x$ ) in km	Frequency
$0 < x \leq 5$	30
$5 < x \leq 10$	
$10 < x \leq 20$	
$20 < x \leq 25$	
$25 < x \leq 30$	

(2)

## Question 22 (AO1): 40% of students got this right (2 marks)

1. Change  $4.5 \text{ km}^2$  to  $\text{m}^2$ .

.....  $\text{m}^2$   
(2)

**(Total 4 marks)**

---

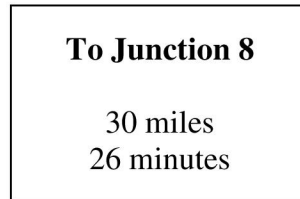
## Question 23 (AO3): 40% of students got this right (3 marks)

\*13. Axel and Lethna are driving along a motorway.

They see a road sign.

The road sign shows the distance to Junction 8

It also shows the average time drivers will take to get to Junction 8



The speed limit on the motorway is 70 mph.

Lethna says,

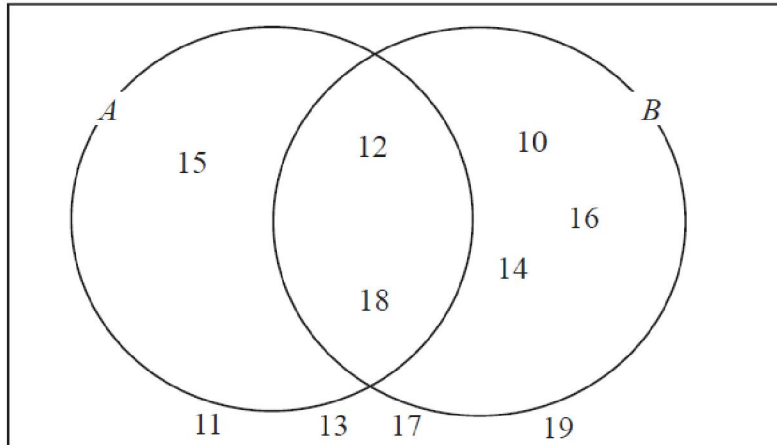
‘We will have to drive faster than the speed limit to go 30 miles in 26 minutes.’

Is Lethna right?

You must show how you got your answer.

## Question 24 (AO1): 40% of students got this right (4 marks)

5 Here is a Venn diagram.



(a) Write down the numbers that are in set

(i)  $A \cup B$

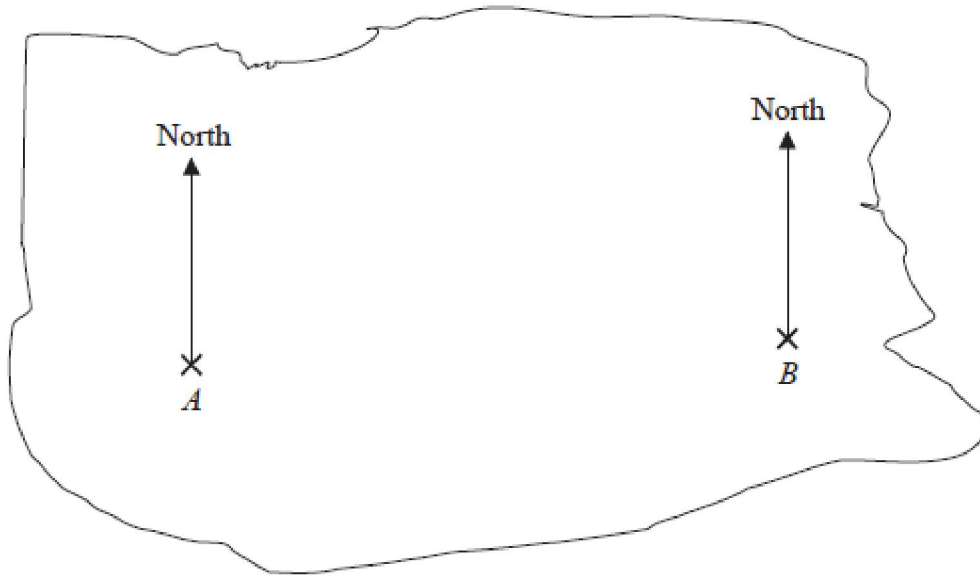
(ii)  $A \cap B$

One of the numbers in the diagram is chosen at random.

(b) Find the probability that the number is in set  $A'$

## Question 25 (AO3): 38% of students got this right (5 marks)

11. The accurate scale drawing shows a map of an island.



$A$  and  $B$  are points on the island.

The real distance, in kilometres, between  $A$  and  $B$  is 56 km.

Treasure is buried at point  $C$  on the island.

Point  $C$  is 35 km from  $A$  and on a bearing of  $300^\circ$  from  $B$ .

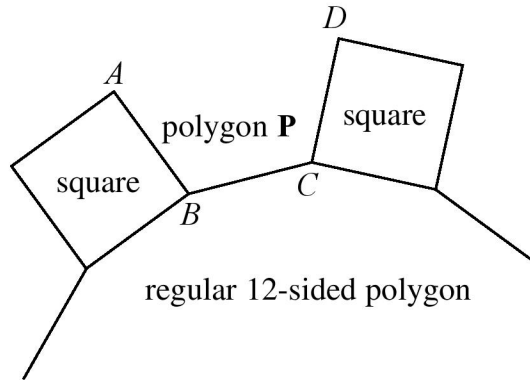
Mark the point  $C$  with a cross (X).

**(Total for Question 11 is 5 marks)**

---

Ext Qn1 (AO3): Only 32% of students got this right( 4 marks)

- 5 In the diagram,  $AB$ ,  $BC$  and  $CD$  are three sides of a regular polygon  $\mathbf{P}$ .



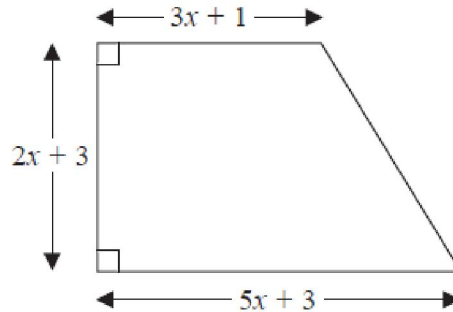
Show that polygon  $\mathbf{P}$  is a hexagon.  
You must show your working.

(Total for Question 5 is 4 marks)

---

## Ext Qn2 (AO1): Only 31% of students got this right( 6 marks)

14. The diagram shows a trapezium.



All the measurements are in centimetres.  
The area of the trapezium is  $46 \text{ cm}^2$ .

- (a) Show that  $x^2 + 2x - 5 = 0$

(3)

- (b) Solve the equation  $x^2 + 2x - 5 = 0$   
Give your solutions correct to 2 decimal places.

Ext Qn3 (AO3): Only 31% of students got this right( 3 marks)

8 Given that  $a : b = 5 : 4$  and  $b : c = 3 : 2$

find the ratio  $a : b : c$

Give your answer in its simplest form.

.....  
(Total for Question 8 is 3 marks)

---



## Answers to Qn 1 (AO3): 58% of students got this right

Question	Working	Answer	Mark	Notes
1		$\frac{39}{80}$	4	<p>M1 for a correct method to find <math>\frac{2}{5}</math> of 40; eg. <math>40 \div 5 \times 2</math> (= 16)</p> <p><b>or</b> for a correct method to find <math>\frac{5}{8}</math> of 40; eg. <math>40 \div 8 \times 5</math> (= 25)</p> <p>M1 for a correct method to find <math>\frac{2}{5}</math> of 40 <b>and</b> <math>\frac{5}{8}</math> of 40</p> <p>M1 (dep on M1) for <math>80 - "16" - "25"</math> (= 39) or <math>\frac{"16" + "25"}{80}</math> (= <math>\frac{41}{80}</math>)</p> <p>A1 <math>\frac{39}{80}</math> oe</p> <p><b>OR</b></p> <p>M1 for <math>1 - \frac{2}{5}</math> (= <math>\frac{3}{5}</math>) <b>and</b> <math>1 - \frac{5}{8}</math> (= <math>\frac{3}{8}</math>)</p> <p>M1 for a correct method to find <math>\frac{3}{5}</math> of 40; eg. <math>40 \div 5 \times 3</math> (= 24)</p> <p><b>or</b> for a correct method to find <math>\frac{3}{8}</math> of 40; eg. <math>40 \div 8 \times 3</math> (= 15)</p> <p>M1 (dep on M1) for "24" + "15" (= 39)</p> <p>A1 <math>\frac{39}{80}</math> oe</p>

## Answers to Qn 2 (AO1): 58% of students got this right

Question	Working	Answer	Mark	Notes
4.	$180 - 150 (=30)$ $360 \div "30"$  <b>OR</b> $\frac{N-2}{N} \times 180 = 150$ $(N-2)180 = 150N$ $30N = 360$	12	3	M1 for $180 - 150 (= 30)$  M1 for $360 \div "30"$  A1 cao  <b>OR</b> M1 for $\frac{N-2}{N} \times 180 = 150$  M1 for $360 \div "30"$  A1 cao

Answers to Qn 3 (AO3): 58% of students got this right

\*5

Redlands School sent  $x$  students to a revision day.

St Samuel's School sent twice as many students as Redlands School.  $2x$

Francis Long School sent 7 fewer students than Redlands School.  $x-7$

Each student paid £15 for the revision day.

The students paid a total of £1155

Work out how many students were sent by each school to the revision day.

You must show all your working.

$$\frac{1155}{15} = 77$$

$$x + 2x + x - 7 = 77$$

$$4x - 7 = 77$$

$$4x = 84$$

$$x = 21$$

Redlands: 21

St. Sam's: 42

Francis Long: 14

## Answers to Qn 4 (AO3): 58% of students got this right

Paper: 1MA1/2H				
Question	Working	Answer	Mark	Notes
2	$\pounds 6 - \pounds 5.64 = 36\text{p}$ or $50\text{p} - 47\text{p} = 3\text{p}$	6.4	P1	for a strategy to compare the same number of bottles e.g. $\pounds 5.64 \div 12$ (= 47 or 0.47) or $12 \times 50\text{p}$ (= 6 or 600) or 36 or 0.36 or 3 or 0.03
			P1	for start of process to find percentage profit e.g. $\frac{36}{564}$ or $\frac{3}{47}$ or $\frac{6}{5.64}$ or $\frac{50}{47}$ oe with consistent units
	6.3829787...%		A1	for answer in the range 6.3 to 6.4

## Answers to Qn 5 (AO2): 55% of students got this right

Question	Working	Answer	Mark	Notes
10	5, 13, 29, 53, 85, 125	(85)	2	M1 for correct evaluation of at least 3 odd cases or sequence of 5, (8), 13, (20), 29... seen or the expression with $n = 9$ or 11 or 19 or 21 or ... substituted but not evaluated A1 for 85 or 125 or 365 or 445 or ... identified

## Answers to Qn 6 (AO2): 54% of students got this right

Question	Working	Answer	Mark	Notes
5.	Some area examples: $\frac{1}{2} \times 12 \times 25 = 150$ $8 \times 25 = 200$ $\frac{1}{2} \times 11 \times 25 = 137.5$ $5 \times 25 = 125$ $\frac{1}{2} \times 21 \times 25 = 262.5$ $\frac{1}{2} \times 44 \times 25 = 550$ $\frac{1}{2} \times 70 \times 25 = 875$ $40 \times 25 = 1000$	550 ft <sup>2</sup>	4	M1 Using the correct dimensions to calculate an area  M1 Complete method to find the area of the grass  A1 cao  C1 (dep on a previous M mark) correct units communicated

## Answers to Qn 7 (AO1): 52% of students got this right

9			Correct line drawn	2	M1 for two pairs of relevant arcs drawn A1 correct line drawn ( with arcs) SC B1 Correct line no arcs visible
---	--	--	--------------------	---	---

## Answers to Qn 8 (AO2): 52% of students got this right

Paper: 1MA1/2H				
Question	Working	Answer	Mark	Notes
3 (b)		No (supported)	C1	Mean distance stays the same with reason, eg total distance remains unchanged or same number of points

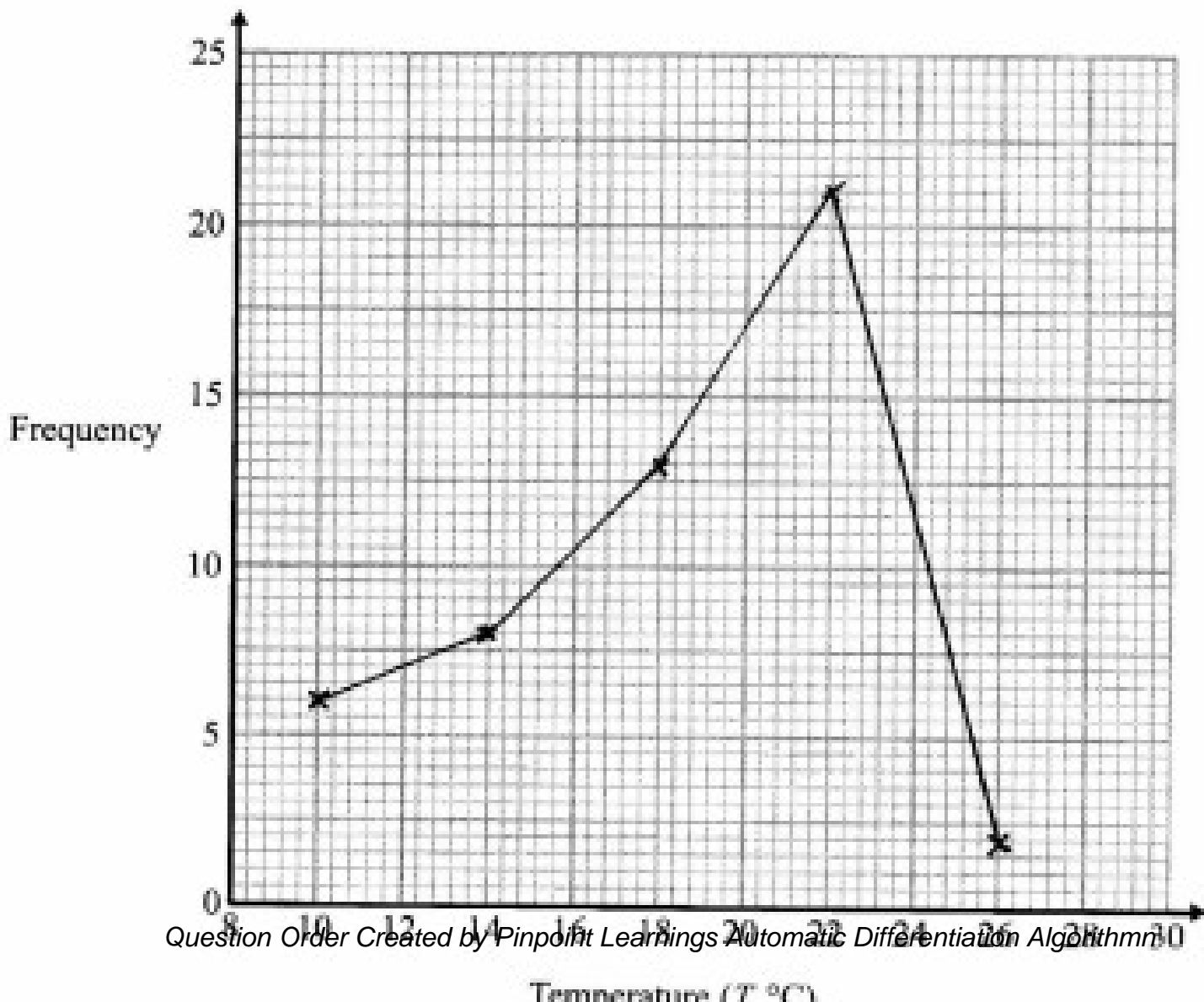


## Answers to Qn 9 (AO1): 49% of students got this right

14 The table gives information about the temperature,  $T$  °C, at noon in a town for 50 days.

Temperature ( $T$ °C)	Frequency	mp	F
$8 < T \leq 12$	6	10	60
$12 < T \leq 16$	8	14	112
$16 < T \leq 20$	13	18	234
$20 < T \leq 24$	21	22	462
$24 < T \leq 28$	2	26	52
$\Sigma F = 50$			920

(c) Draw a frequency polygon for the information in the table.



## Answers to Qn 10 (AO2): 48% of students got this right

Part	Working an or answer examiner might expect to see	Mark	Notes
2	Cost of 1 litre of petrol in NY = $\$ \frac{2.83}{3.785} = \$0.7476\dots$	1	This mark is given for finding out the cost of a litre of petrol in New York in dollars
	Cost of 1 litre of petrol in NY = $\frac{0.7476\dots}{1.46} \text{ p} = 51.2\text{p}$	1	This mark is given for finding out the cost of a litre of petrol in New York in pence
	Petrol; is better value for money in New York ( $0.51.2 < 108.9\text{p}$ )	1	This mark is given for a correct conclusion supported by working

Answers to Qn 11 (AO3): 48% of students got this right

**15** A cinema sells adult tickets and child tickets.

The total cost of 3 adult tickets and 1 child ticket is £30

The total cost of 1 adult ticket and 3 child tickets is £22

Work out the cost of an adult ticket and the cost of a child ticket.

$$\begin{array}{r} 3a + c = 30 \quad \times 3 \\ a + 3c = 22 \quad \times 1 \end{array}$$

$$9a + 3c = 90$$

$$\underline{-a + 3c = 22}$$

$$8a = 68$$

$$a = 8.5 \quad (\pounds 8.50)$$

$$8.5 + 3c = 22$$

$$3c = 13.5$$

$$c = 4.5 \quad (\pounds 4.50)$$

## Answers to Qn 12 (AO1): 48% of students got this right

Part	Working or answer an examiner might expect to see	Mark	Notes
3	$12.5 \times 1000$	1	This mark is given for converting kg to g
	$12500 \div 19.3$	1	This mark is given for a method to find the density of the gold bar
	648	1	This mark is given for the correct answer only

## Answers to Qn 13 (AO2): 47% of students got this right

*7			Yes enough	5	<p>M1 for substituting into Pythagoras' theorem</p> <p>M1 for complete correct use of Pythagoras' theorem (14.866...)</p> <p>M1 for a complete method to find the perimeter of their trapezium</p> <p>A1 55.(86606..)</p> <p>C1 (dep on correct first 2 M marks) for correct conclusion dependent upon supporting calculations</p>
----	--	--	------------	---	--

## Answers to Qn 14 (AO2): 47% of students got this right

Paper 1MA1: 2H			
Question	Working	Answer	Notes
5 a		graph	M1 for method to start to find distance cycled in 36 mins, eg. line drawn of correct gradient or $15 \times \frac{36}{60}$ C1 C1 for correct graph from 9.00 am to 9.36 am for graph drawn from "(9.36, 9)" to (10.45, "9" + 8)
b		4.5	M1 A1 for $18 \times 0.25$ oe cao

## Answers to Qn 15 (AO1): 44% of students got this right

Paper 1MA1: 2H			
Question	Working	Answer	Notes
12 a		0.4	B1 For 0.4 oe

## Answers to Qn 16 (AO2): 44% of students got this right

Part	Working or answer an examiner might expect to see	Mark	Notes
6	Width = $x$ Length = $x + 7$	1	This mark is given for forming expressions for the length and width of the rectangle
	$x + x + 7 + x + x + 7 + 7 + x + x + 7 + x + x + 7 + 7 = 70$ $8x + 42 = 70$	1	This mark is given for forming an equation for the width of the shape
	$x = \frac{70 - 42}{8}$	1	This mark is given for finding an expression for $x$
	width = 3.5, length = 10.5	1	This mark is given for finding values for the width and the length of the shape
	$4 \times 3.5 \times 10.5 = 147$	1	This mark is given for finding the area of the shape



## Answers to Qn 18 (AO2): 42% of students got this right

Paper: 1MA1/2H				
Question	Working	Answer	Mark	Notes
12		15	P1  P1  A1	for a process to find the interior or exterior angle of a regular 12 sided polygon e.g. $\frac{10 \times 180}{12}$ (= 150) or $\frac{360}{12}$ (= 30), must be no contradictions  for process to find angle <i>STR</i> , eg $\frac{180 - "150"}{2}$ or $\frac{"30"}{2}$  Cao

# Answers to Qn 19 (AO1): 42% of students got this right

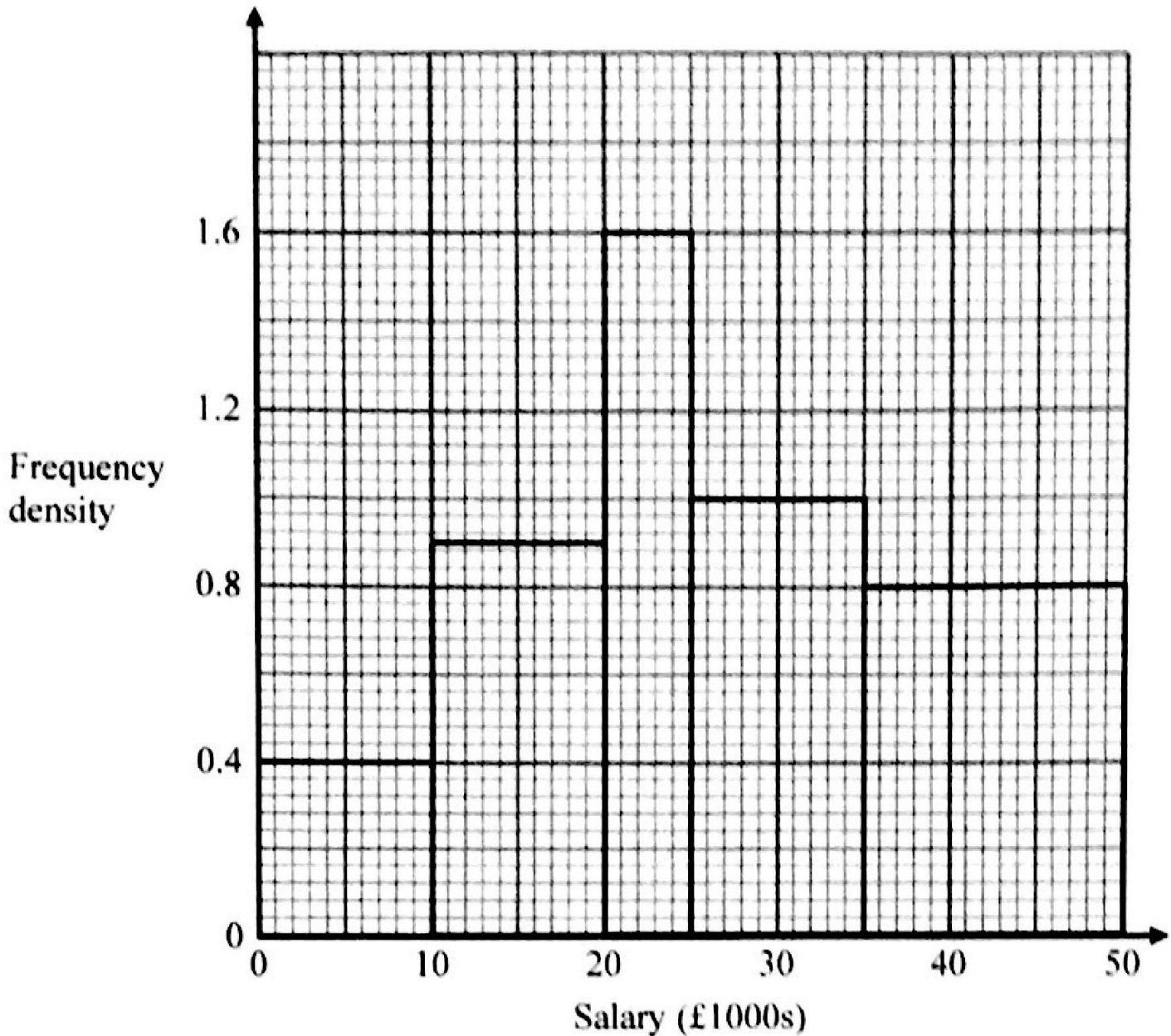
4 (a)		-1.2 and 3.2	B2	for both roots correct
			(B1)	(for one correct root)
(b)		(1, -5)	B1	cao

## Answers to Qn 20 (AO1): 42% of students got this right

Question	Working	Answer	Mark	Notes
14	$x = 0.4575757\dots$ $10x = 4.575757\dots$ $1000x = 457.575757\dots$ $990x = 453$ <b>OR</b> $100x = 45.7575757\dots$ $99x = 45.3$	$\frac{151}{330}$	M1  M1  A1	for $0.4575757\dots$ or $0.4 + 0.05757\dots$  (dep) for two recurring decimals that when subtracted would give an integer or terminating decimal or for $\frac{453}{990}$  conclusion to proof to given fraction

Answers to Qn 21 (AO1): 41% of students got this right

26 The histogram shows some information about the salaries of a sample of people.



(a) Use the histogram to complete the frequency table.

Salary ( $p$ ) in £1000s	Frequency
$0 < p \leq 10$	4
$10 < p \leq 20$	9
$20 < p \leq 25$	8
$25 < p \leq 35$	10

## Answers to Qn 22 (AO1): 40% of students got this right

Question		Working	Answer	Mark	Notes
1.		$4.5 \times 1000 \times 1000$	4 500 000	2	M1 for complete method equivalent to $4.5 \times 1000 \times 1000$  A1 for 4 500 000 oe

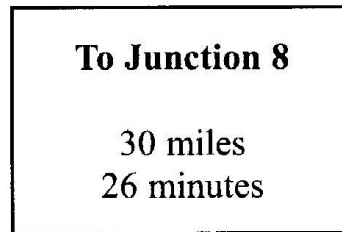
## Answers to Qn 23 (AO3): 40% of students got this right

\*13 Axel and Lethna are driving along a motorway.

They see a road sign.

The road sign shows the distance to Junction 8

It also shows the average time drivers will take to get to Junction 8



The speed limit on the motorway is 70 mph.

Lethna says,

‘We will have to drive faster than the speed limit to go 30 miles in 26 minutes.’

Is Lethna right?

You must show how you got your answer.

Speed to Junction 8

$$S = \frac{D}{T} \quad S = \frac{30 \text{ miles}}{\underline{\underline{26 \text{ minute}}}} \quad (\text{not hours})$$

Change 26 minutes to hours

$$\frac{26}{60} = 0.4\dot{3}$$

$$S = \frac{30}{0.4\dot{3}} = \underline{\underline{69.23076\dot{9}}} \text{ mph}$$

Lethna is wrong,  $69.2 \text{ mph} < 70 \text{ mph}$

## Answers to Qn 24 (AO1): 40% of students got this right

Paper 1MA1: 2H			
Question	Working	Answer	Notes
5 (a)(i)		10, 12, 14, 15, 16, 18	B1 cao
(ii)		12, 18	B1 cao
(b)		$\frac{7}{10}$	M1 for 7 or indicating correct region or for 10, 14, 16, 11, 13, 17, 19 listed  A1 for $\frac{7}{10}$ oe

## Answers to Qn 25 (AO3): 38% of students got this right

11		× marked	M1 M1 M1 M1 A1	Measures length $AB$ and uses figure in next step or uses 56 and 35 to get scale factor for a complete method to find correct scaled length for 35 km Draws an arc from $A$ of "5" Draws a bearing of $300^\circ$ from $B$ Clearly indicates intersection as required point
----	--	----------	----------------------------	---



Ext ANSWERS 1 (AO3): Only 32% of students got this right( 4 mark

**Question 5 (Total 4 marks)**

Part	Working an or answer examiner might expect to see	Mark	Notes
	$180 - \frac{360}{12} = 150$	M1	This mark is given for a complete method to find the interior angle of the dodecagon
	at <i>B</i> or <i>C</i> , $360 - 150 - 90 = 120$	M1	This mark is given for a complete method to find the interior angle of polygon <b>P</b>
	$180 - \frac{360}{x} = 120$ , $\frac{360}{x} = 60$ , $x = 6$	A1	This mark is given for using the interior and to find out the number of sides of polygon <b>P</b>
	Polygon <b>P</b> has 6 sides, so is a hexagon	C1	This mark is given for a complete solution, fully supported by accurate figures

Ext ANSWERS 2 (AO1): Only 31% of students got this right( 6 mark

14.	(a)	$\frac{1}{2}(3x + 1 + 5x + 3)(2x + 3) = \frac{1}{2}(8x + 4)(2x + 3)$ <p>So, <math>(4x + 2)(2x + 3) - 46 = 0</math></p> $8x^2 + 16x + 6 - 46 = 0$ $8x^2 + 16x - 40 = 0$ $x^2 + 2x - 5 = 0$	Proof	3	<p>M1 for correct method to find area of trapezium</p> <p>M1 (dep) for expanding all brackets to get a correct expression for the area</p> <p>C1 for complete correct proof</p>
	(b)	$x = \frac{-2 \pm \sqrt{2^2 - 4(1)(-5)}}{2 \times 1}$ $= \frac{-2 \pm \sqrt{24}}{2}$ <p><b>OR</b></p> $(x + 1)^2 - 1^2 - 5$ $= (x + 1)^2 - 6$ $x + 1 = \pm \sqrt{6}$	1.45, -3.45	3	<p>M1 for <math>\frac{-2 \pm \sqrt{2^2 - 4(1)(-5)}}{2 \times 1}</math> condone one sign error in substitution</p> <p>M1 for <math>\frac{-2 \pm \sqrt{24}}{2}</math></p> <p>A1 for 1.44 to 1.45 (and -3.44 to -3.45)</p> <p><b>OR</b></p> <p>M1 for <math>(x + 1)^2 - 1^2 - 5</math> (or equivalent)</p> <p>M1 for <math>x + 1 = (\pm)\sqrt{6}</math></p> <p>A1 for 1.44 to 1.45 (and -3.44 to -3.45)</p>

Ext ANSWERS 3 (AO3): Only 31% of students got this right( 3 mark

8 Given that  $a : b = 5 : 4$  and  $b : c = 3 : 2$

find the ratio  $a : b : c$

Give your answer in its simplest form.

$$a : b \qquad b : c$$

$$5 : 4 \qquad 3 : 2$$

$$15 : 12 \qquad 12 : 8$$

$$\text{So } a : b : c = 15 : 12 : 8$$

.....  
(Total for Question 8 is 3 marks)

---