

SEPTEMBER

Hello!

We often have conversations with well-intentioned parents who want to help their children as much as possible through this vital year. Many parents, though, don't feel like they know where to find suitable resources or how to help their child to work through the course. This year we will be sending home monthly emails with ideas and strategies to help parents support their child as they study for their GCSE subjects. We hope that these monthly e-mails (with September being a little later than planned) will help in this regard, especially with the GCSE still being so new and unfamiliar.

Students' success in their English GCSE is dependent on being able to remember the English skills required to write formal essays, to analyse texts and to respond to questions based on language, theme, character, or setting. In addition, there is much knowledge to be learnt about the texts studied, such as historical and societal influences on the writer. You'll be receiving a monthly calendar with an activity to try each day which reflects these requirements. Students will be so much more likely to remember what they have revised if it is broken up into a little bit each day, rather than cramming it all into the final weeks. In addition to daily activities, students will have one lesson per fortnight which is allocated specifically to revision or an area of weakness. Finally, each month you will also receive a selection of exam questions that will help students to practise.

Continuing to read regularly is an essential part of English revision. We recommend that students read for at least 20 minutes each evening and read texts which interest them. All texts chosen should have a good level of Standard English. As the year progresses, pieces should increase in difficulty and challenge. A good mix of non-fiction and fiction, modern and pre-1918 texts is expected; novels, speeches, newspapers, news websites, journals, textbooks, short stories and blogs are some suggestions.

Hopefully, the emails are useful; they will also contain information for you such as upcoming dates, new GCSE information, deadlines, etc. if you have any feedback or ideas that you'd like to be included in the future please let us know.

Ms Meredith

(Assistant Head of English)

3 Naveed is going to buy new doors for his house.

He buys 13 doors.

Each door has 2 hinges.

Each hinge needs 8 screws.



hinge

Naveed has to buy all the screws he needs for the hinges.

There are 20 screws in each packet of screws.

How many packets of screws does Naveed need to buy?

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

14 Robbie needs to record 20 minutes of music to play in his restaurant.

He has already recorded the following music.

	Playing time
Track 1	5 minutes 30 seconds
Track 2	3 minutes 45 seconds
Track 3	4 minutes 40 seconds
Track 4	3 minutes 36 seconds

How much more music does he need to record?

Give your answer in minutes and seconds.

..... minutes seconds

(Total for Question 14 is 3 marks)

3			11	3	M1 for $13 \times 2 = 8$ (= 208) M1 for "208" + 20 or answer of 10.4 A1 cao OR M1 for $20 \div 8$ (= 2.5) M1 for $13 \times 2 = "2.5"$ or answer of 10.4 A1 cao
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Question 3

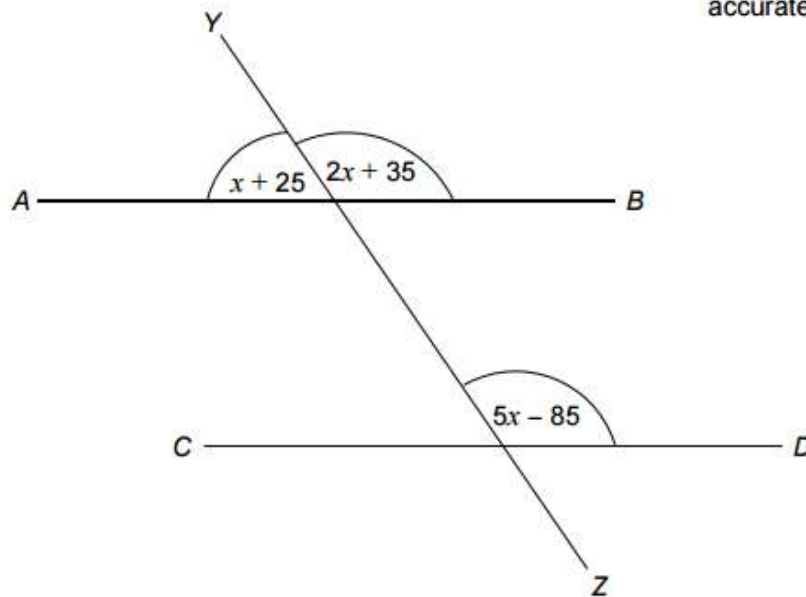
Many students were able to work out that Naveed needs 208 screws and most went on to divide by 20. A common error was not rounding the decimal answer up to a whole number of packets with some students giving 10.4 as the final answer and others rounding it down to 10. Some students did not use the information that each door has 2 hinges and worked out that Naveed needs 104 screws.

Question 14

It was very common to see the total playing time of the four tracks being added as decimals with the calculation $5.30 + 3.45 + 4.40 + 3.36 = 16.51$ minutes with 3 minutes 49 seconds being a very popular incorrect answer. The most successful candidates were those who added the minutes and hours separately and then tried to convert 151 seconds to minutes and seconds. Many showed their working for subtracting their time from 20 minutes which meant they could score the second method mark. It was unusual to see all the times converted to seconds.

- 16 AB , CD and YZ are straight lines.
All angles are in degrees.

Not drawn accurately



Show that AB is parallel to CD .

[4 marks]

- 19 Here is a rectangular piece of paper from a note pad.

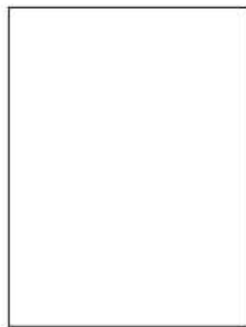


Diagram **NOT** accurately drawn

The length of the piece of paper is 6 cm longer than the width.

The perimeter of the piece of paper is 72 cm.

Find the **length** of the piece of paper.
You must show your working.

..... cm

(Total for Question 19 is 4 marks)

Jonah asked 47 people at a sports centre to tell him the game they liked best from

squash badminton tennis

4 of the 20 women said tennis.

6 of the men said tennis.

17 people said badminton.

8 more men than women said squash.

How many men said badminton?

You must show all your working.

(Total for Question 20 is 4 marks)

*22 The diagram shows the plan of a floor.

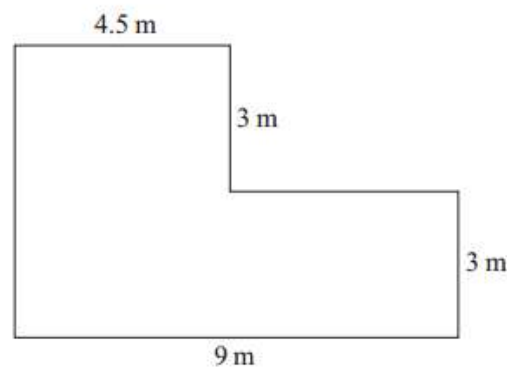


Diagram **NOT**
accurately drawn

All the corners of the floor are right angles.

Jason wants to cover the floor completely with underlay.

Underlay is sold in rolls.

Each roll of underlay has a length of 5 m and a width of 1.5 m.

Each roll of underlay costs £59.99

Jason has £400 to spend.

Does Jason have enough money to buy the underlay he needs?

16	Alternative method 1			
	$x + 25 + 2x + 35 = 180$	M1	oe	
	$x = 40$	A1		
	2 × their 40 + 35 and 5 × their 40 – 85	M1dep		
	2 × 40 + 35 = 115 and 5 × 40 – 85 = 115 and corresponding angles	A1		
	Alternative method 2			
	$5x - 85 = 2x + 35$	M1	oe	
	$x = 40$	A1		
	2 × their 40 + 35 and their 40 + 25	M1dep		
	2 × their 40 + 35 = 115 and their 40 + 25 = 65 and angles on a straight line	A1		
19		21	4	<p>M1 for using x and $x + 6$ or x and $x - 6$ as part of a perimeter or semi-perimeter M1 for forming equation using perimeter or semi-perimeter e.g. $x + x + 6 + x + x + 6 = 72$ oe M1 for correct method to show the intention to subtract numbers from one side of the equation and collect terms e.g. $4x + 12 (-12) = 72 (-12)$ A1 cao Or M1 for using two numbers with a difference of 6 as part of a perimeter or semi perimeter M1 for first step in a strategic method to add 4 numbers (2 equal and 2 with a difference of 6) and compare with 72 oe M1 for continuing with a strategic method to find the length and width of the paper with a difference of 6 and a perimeter of 72 (at least three trials needed) oe A1 cao</p>

Question 19

This question posed more problems for some students whilst others were able to give fully correct answers.

A popular incorrect answer was to use 12 and 24, not a difference of 6 from each other but a difference of 6 from 18 which was $72 \div 4$. $72 \div 4$ was often seen as a first calculation. Some students used area with 6 and 12 and no marks were awarded as this was not an area question.

20*					7	4	M1 for a correct first step which results in a value that could be in the table: eg. $47 - 20 (= 27)$ or $4 + 6 (= 10)$ M1 for a correct method to find a second value that could be in the table using their first value eg $47 - "10" - 17 (=20)$ M1 for a fully correct and complete method. C1 for 7 clearly identified																			
			<table border="1"> <thead> <tr> <th></th> <th>S</th> <th>B</th> <th>T</th> <th></th> </tr> </thead> <tbody> <tr> <td>W</td> <td>6</td> <td>(10)</td> <td>4</td> <td>20</td> </tr> <tr> <td>M</td> <td>14</td> <td>7</td> <td>6</td> <td>27</td> </tr> <tr> <td></td> <td>20</td> <td>17</td> <td>10</td> <td>47</td> </tr> </tbody> </table>		S	B	T		W	6	(10)	4	20	M	14	7	6	27		20	17	10	47			
	S	B	T																							
W	6	(10)	4	20																						
M	14	7	6	27																						
	20	17	10	47																						

Question 20

This was well answered by those who remembered to use a two way table to organise the information given in the question. They generally scored at least 2 marks and many scored full marks. Candidates who did not do this usually could not get past the starting calculation of working out the number of men or of working out the total number playing tennis. In both methods a significant number of candidates who got as far as finding squash = 20 then failed to get the correct values for men and women playing squash despite the line stating "8 more men than women played squash."

22	$400 \div 59.99 = 6.6(7)$ rolls 6 rolls cover $6 \times 1.5 \times 5 = 45\text{m}^2$ Floor area $4.5 \times 6 + 4.5 \times 3 = 40.5\text{m}^2$ (< 45) $3 \div 1.5 = 2$ $(4.5 + 4.5 + 9 + 9) \div 5 = 5.4$ 5.4 \rightarrow 6 rolls $6 \times 59.99 = \text{£}359.94$ ($< \text{£}400$)	Yes with correct figures	4	M1 for correct method to find number of rolls for £400 M1 for correct method to work out coverage for found number of rolls. M1 for correct method to find area of floor C1 for yes with 40.5 and 45 OR M1 for an attempt to fit widths M1 for a correct method to find total number of rolls M1 for correct method to find total cost of rolls C1 for yes with (£)359.94
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Question 22

The most common successful approach was to work out the total area of the floor and then divide by the area of 1 roll of underlay. To progress further candidates then had to round their number of rolls (5.40 up to 6, work out the total cost of 6 rolls and then compare this cost with £400. It was pleasing to see a significant number of candidates doing just that. Some candidates did try to divide the floor up into rolls but this approach was usually unsuccessful.

- 9 The n th term of a sequence is $2n + 1$
The n th term of a different sequence is $3n - 1$

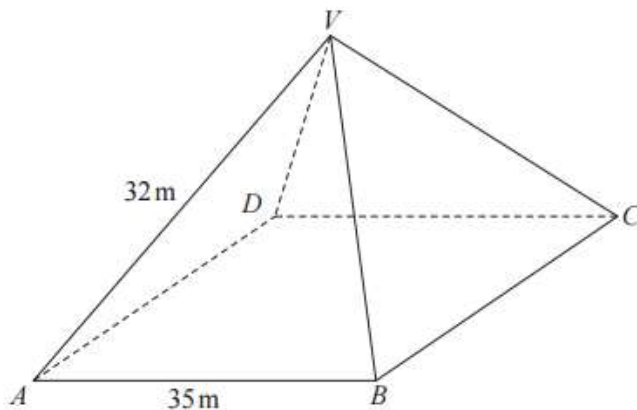
Work out the **three** numbers that are
in both sequences
and
between 20 and 40

[3 marks]

- 18 The diagram shows a sketch of the pyramid
in front of the Louvre.



Diagram **NOT**
accurately drawn



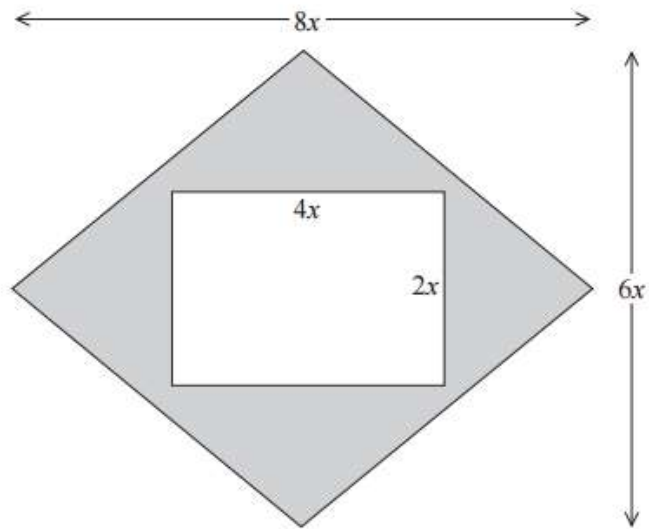
The base of the pyramid is a square $ABCD$ with sides of length 35 m.
The vertex V of the pyramid is vertically above the centre of the square.
The sloping edges of the pyramid each have length 32 m.

Calculate the height of the pyramid.
Give your answer correct to 3 significant figures.

..... m

(Total for Question 18 is 4 marks)

18 The diagram shows a metal plate in the shape of a rhombus.



All the measurements are in centimetres.

The unshaded part of the plate is in the shape of a rectangle.

The total area of the shaded part of the plate is the same as the area of a square of side t cm.

Find an expression for t in terms of x .

.....
(Total for Question 18 is 4 marks)

9	Lists at least three terms from first sequence between 20 and 40	M1	eg 21, 23, 25, ...
	Lists at least three terms from second sequence between 20 and 40	M1	eg 20, 23, 26, ...
	23 29 35	A1	SC2 for any two correct with at most one incorrect SC1 for any one correct with at most two incorrect

18	$35^2 + 35^2 = 2450$ $32^2 - \left(\frac{\sqrt{2450}}{2}\right)^2$ Or $32^2 - \left(\frac{35}{2}\right)^2 =$ $717.75 - 17.5^2$	20.3	4	M1 $35^2 + 35^2$ M1 $\sqrt{2450}$ M1 $32^2 - \left(\frac{\sqrt{2450}}{2}\right)^2$ A1 20.28 - 20.3 Or M1 $32^2 - 17.5^2$ M1 $\sqrt{717.75}$ M1 $\sqrt{717.75^2} - 17.5^2$ A1 20.28 - 20.3
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Question 18

This question proved hard for the majority of students to even start. Those who spotted the need for Pythagoras's Theorem often correctly completed the first step but added and not subtracted in the second, and hence got no further than 2 marks.

18	$4x \times 2x = 8x^2$ $8x \times 6x + 2 = 24x^2$ $24x^2 - 8x^2 = 16x^2$	4x	4	M1 for $4x \times 2x (= 8x^2)$ or $8x \times 6x + 2 (= 24x^2)$ or M1 $'8x \times 6x + 2' - '4x \times 2x' (= 16x^2)$ M1(dep M1, M1) $\sqrt{16x^2}$ A1
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Question 18

This question was not well done. A large proportion of the responses seen were awarded only one mark out of the four available for expressing the area of the $4x$ by $2x$ rectangle as $4x \times 2x$. Of the small proportion of students who gained more credit than this, most scored 2 marks for writing down a correct expression for the shaded area (often unsimplified) but were unable to get as far as giving the fully correct expression for t . A final answer of $t = 4x$ was awarded full credit, though technically this is a formula not an expression. A large number of students simplified $4x \times 2x$ as $8x$ and/or $8x \times 6x$ as $48x$. The latter incorrect expression for the area of the rhombus, rather than the

correct expression $\frac{8x \times 6x}{2}$ was seen quite frequently.