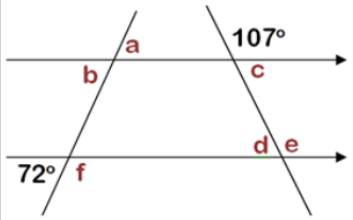
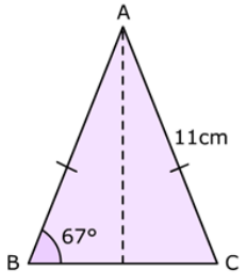
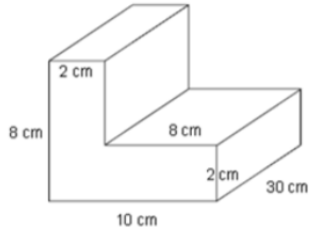
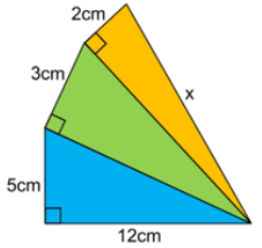
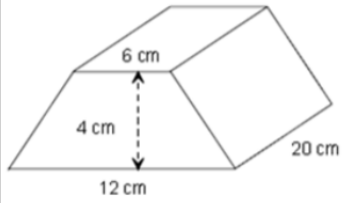
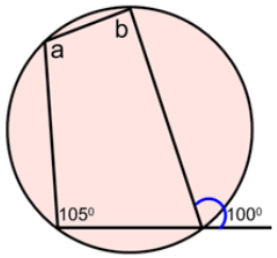
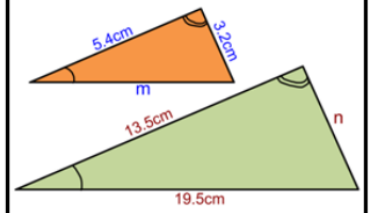
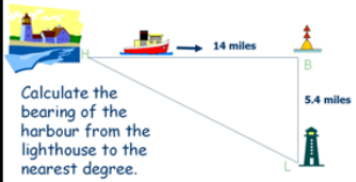
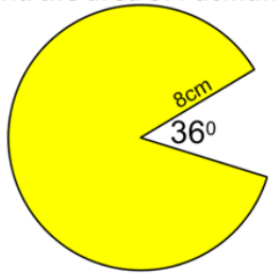
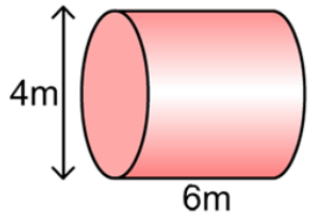
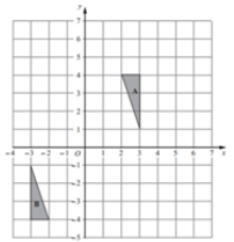
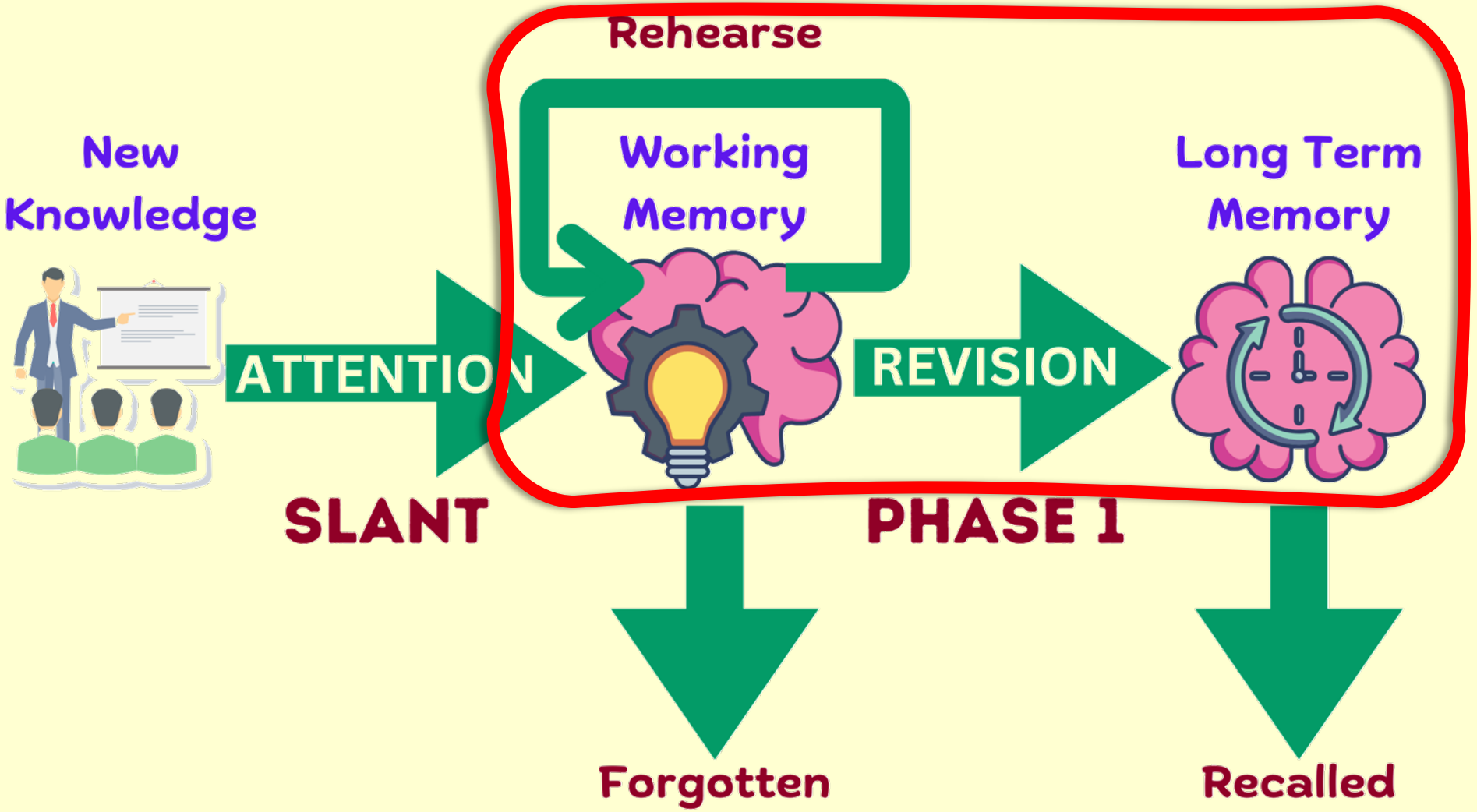
15 January 2026

Revision in Maths

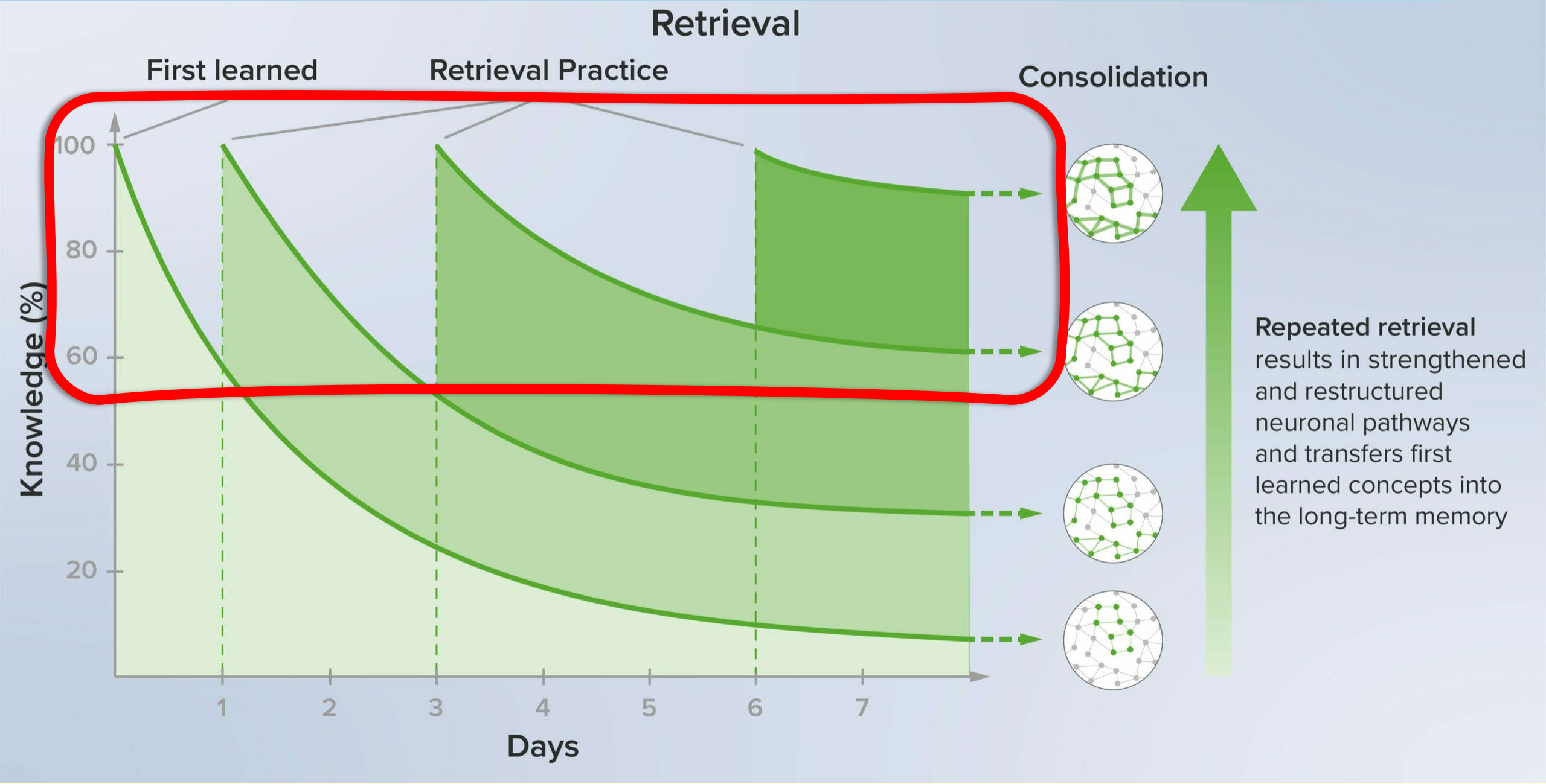
Calculate the value of each letter 	Find the area of the triangle 	Find the volume of the prism 	Find the missing length, *x* 
Find the volume of the prism 	Find the angles *a* and *b* 	Find the lengths *m* and *n* 	Explain how you can work out the interior angle of an n-sided regular polygon. Can you come up with a formula?
 Calculate the bearing of the harbour from the lighthouse to the nearest degree.	Find the area of Pacman 	Work out the surface area of the cylinder 	Describe fully the single transformation which maps *A* to *B* 

Memory model

TENBURY HIGH
ORMISTON ACADEMY



Distributed retrieval



Understanding GCSE Maths in Year 11

- Students sit three exams: two calculator papers and one non-calculator

  - All topics from Years 7–11 can be assessed in any paper
  - Questions test methods, reasoning, and problem solving skills may be presented as a calculation or imbedded into a worded problem

The Role of Parents in Supporting Revision

- You do not need to know how to do the maths yourself, I will show you some resources which can support your child
- Your encouragement and routines make a big difference
- Helping students stay organised and motivated is key
- Positive attitudes towards maths build confidence
- Pointing students in the right direction and helping them to know what to study and when is key

Creating a Strong Revision Routine at Home

- Encourage short, regular revision sessions (20–40 minutes)
- Maths revision is most effective when done little and often
- Support the use of a revision timetable
- Most pupils will need to focus on A01 skills first so they can remember how to do a particular skill then they need to add difficulty by trying reasoning and problem solving questions. If they start with the more difficult skill it can be discouraging as it will seem too difficult so start by building confidence then build complexity.
- As exams draw closer, complete past exam papers in timed conditions to replicate the exam environment (90 minutes)

The revision cycle. Start by finding out what they do/don't know…

Assess the impact of the revision!

What do/ don't they know?

Active revision

Next steps to improve learning/assessment
Highlight the #s that apply to you. Response to your relearning tasks in red pen on your exam paper / in your book.
#1. Revisit Pythagoras's formula and substitute given values while redoing question 4. Be aware of the type of triangle being used and how that affects the equation.
#2. Revisit trigonometry in split triangles on a perpendicular for two right-angled triangles, then redo your response to question 5.
#3. You need to reference each value in your method. Redo your response to question 9 with more of your method written.
#4. You need to be more accurate during your method and not round too much too soon. Redo your response to question 3 and try to round at the very end.
#5. You need to keep $\sqrt{3}$ as a surd (in square root form). Redo your response to question 9 using this.
• Writing out method / what you type and get on your calculator display. • Be careful and avoid early rounding as it reduced accuracy.

Question 3 ✓
167 mins

288c Determine if a triangle is right-angled or if it is possible to construct (converse of Pythagoras' theorem). Review

CORRECT ANSWER:
See full markscheme
The triangle can not be constructed.

STUDENT ANSWER:
The triangle can not be constructed.

Write a new comment

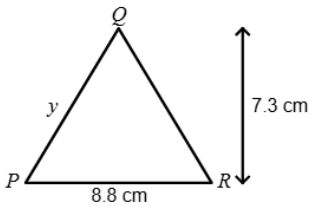
Question 4 ✗
167 mins

288d Use Pythagoras' theorem to find a length in an isosceles triangle. Review

CORRECT ANSWER:
See full markscheme
$y = 8.5$ cm

STUDENT ANSWER:
$y =$ idk cm

PQR is an isosceles triangle where $PQ = QR$.



Find the length marked y on the diagram.
Give your answer correct to 1 decimal place.

Write a new comment

TENBURY HIGH
ORMISTON ACADEMY

End of Unit Assessment

GM5 – Right-angled Triangles

Surname		Forename	
Centre number		Candidate number	
Class teacher		Total marks available	
Raw marks scored	/	Percentage	%

Question Level Analysis (raw marks to be inputted by pupils)			
Question Number	Raw Mark	Question Number	Raw Mark
1		6	
2		7	
3		8	
4		9	
5			

AQA

Please write clearly in block capitals.
Centre number | Candidate number
Surname
Forename(s)
Candidate signature
I declare this is my own work.

GCSE
MATHEMATICS
H
Higher Tier Paper 1 Non-Calculator

Friday 19 May 2023 Morning Time allowed: 1 hour 30 minutes

Materials
For this paper you must have:
- mathematical instruments
- the Formulae Sheet (enclosed).

You must **not** use a calculator.

Instructions
- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information
- The marks for questions are shown in brackets.
- The maximum mark for this paper is 80.
- You may ask for more answer paper, graph paper and tracing paper. These must be tagged securely to this answer book.

Advice
In all calculations, show clearly how you work out your answer.

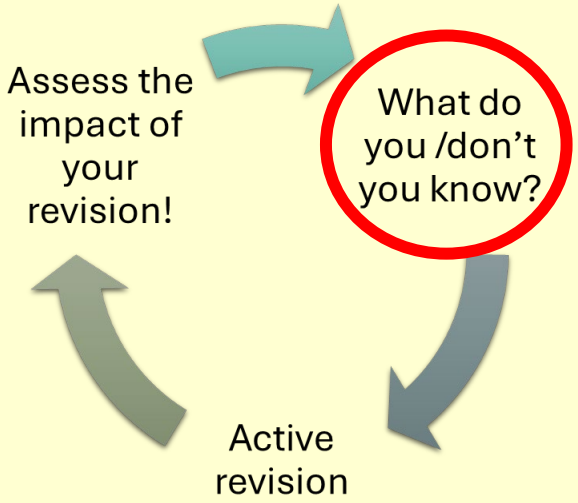
For Examiner's Use	
Pages	Mark
2–3	
4–5	
6–7	
8–9	
10–11	
12–13	
14–15	
16–17	
18–19	
20–21	
22–23	
TOTAL	

J U N 2 3 8 3 0 0 1 H 0 1

IB/M/Jun23/E8

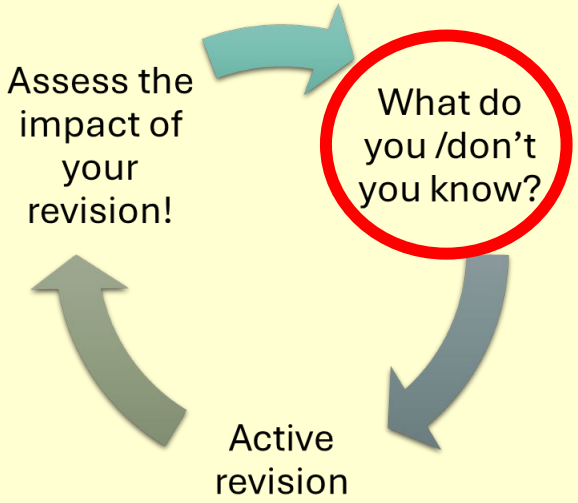
8300/1H

Revision checklist (KS4)



Key Knowledge Points								Knowledge Y10 Mid	
Unit	Spec. Re	Stran	Substrand	Knowledge	Tier	Sparx Cod	Corbett Maths	Before	After
NP9	N6	Number	Roots and powers	Estimating roots and powers	H	U299			
NP9	N2	Number	Number skills	Using a calculator	F	U926	352		
A2	A4	Number	Index rules	Index rules with positive indices	F	U235	174		
A2	A4	Number	Index rules	Index rules with negative indices	F	U694	175		
NP9	N14	Number	Rounding	Estimating calculations	F	U225	215		
NP9	N15	Number	Rounding	Finding error intervals	F	U657	377		
NP9	N15	Number	Rounding	Truncating decimals	F	U108			
NP9	N15	Number	Rounding	Finding error intervals for truncated numbers	F	U301			
NP8	N10	Number	Fractions, decimals and percentages	Converting between fractions, decimals and percentages	F	U888	130		
NP8	N1	Number	Fractions, decimals and percentages	Ordering fractions, decimals and percentages	F	U594	131		
NP8	R9	Number	Fractions, decimals and percentages	Writing numbers as percentages of other numbers	F	U925	237		
NP8	R9	Number	Fractions and percentages of amounts	Finding percentages of amounts without a calculator	F	U554	234		
NP8	R9	Number	Fractions and percentages of amounts	Finding percentages of amounts with a calculator	F	U349	235		
NP8	R9	Number	Percentage change	Percentage change without a calculator	F	U773	233		
NP8	R9	Number	Percentage change	Percentage change with a calculator	F	U671	233		
NP8	R9	Number	Percentage change	Finding original values in percentage calculations	F	U286	240		
NP8	R9	Number	Percentage change	Finding the percentage an amount has been changed by	F	U278	240		
A2	A1	Algebra	Algebraic notation	Using algebraic notation	F	U613	19		
A1	A2	Algebra	Substituting	Substituting into expressions	F	U201	20		
A2	A4	Algebra	Simplifying expressions	Simplifying expressions by collecting like terms	F	U105	9		
A2	A4	Algebra	Simplifying expressions	Simplifying expressions using index laws	F	U662	174		
A3	A4	Algebra	Brackets	Expanding single brackets	F	U179	13		
A3	A4	Algebra	Brackets	Expanding double brackets	F	U768	14		
A3	A4	Algebra	Brackets	Factorising into one bracket	F	U365	117		
A1	A17	Algebra	Solving equations	Solving equations with one step	F	U755	110		

Use the QLA



Year 11 Mock (Foundation) Exam Feedback Sheet PAPER 1

Q	Knowledge	Spec Ref	AO	Max Mark	My Mark
1a	Sequence	A23	AO1	1	1
1b	Sequence	A23	AO1	1	1
1c	Sequence including negative	A23	AO3	1	1
1d	Negative product	N2	AO1	1	1
2a	Multiples	N4	AO1	1	1
2b	Factors	N4	AO1	1	1
2c	Prime number	N4	AO1	1	1
2d	Square number	N6	AO1	1	1
3	Pictogram problem	S2	AO2	3	3
4a	Reading value from graph	A14	AO2	1	1
4b	Ratio from graph	R10 A14	AO2	2	2
5	multiplication	N3	AO1 (1) AO3(2)	3	3
6	Money and profit problem	R11 N2(2)	AO1 (1) AO3(2)	3	0
7a	Money problem using assumption	N2	AO3	3	1
7b	Effect of assumption	N2	AO3	1	0
8	Recipe problem	R10	AO1 (1) AO2 (2)	3	0
9a	Simplify ratio	R4	AO1	3	3
9b	Probability	P7	AO1	1	1
10	Substitute into expression, indices	N6 A2(2)	AO1	3	3
11	Construct circle from diameter	G2	AO3	1	1
12a	Fraction of a quantity	N2, N12	AO1	3	3
12b	Divide in a ratio	R5	AO1	3	3
13	Angles on a straight line	A3(2) G3	AO1	3	3
14a	Calculation	N3 N14	AO1	3	1
14b	Check by rounding	N14	AO3	1	1
15a	Diameter to radius	G9	AO2	1	1
15b	Sphere volume in terms of pi	N8 G17	AO1	2	1
16a	Inverse proportion	A2(2) R10	AO1	3	0

Now let's work on the areas you do not know!

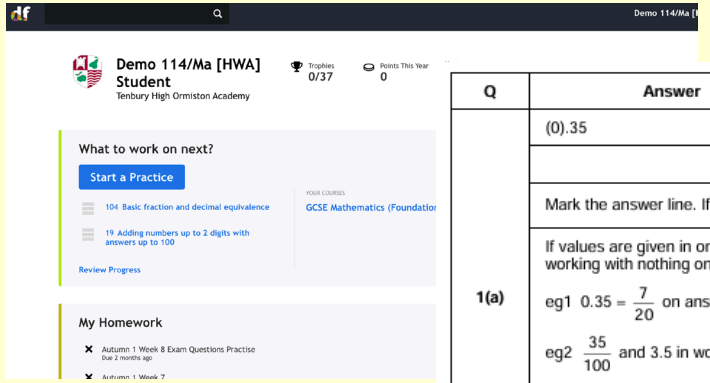
Assess the impact of your revision!

What do you /don't you know?

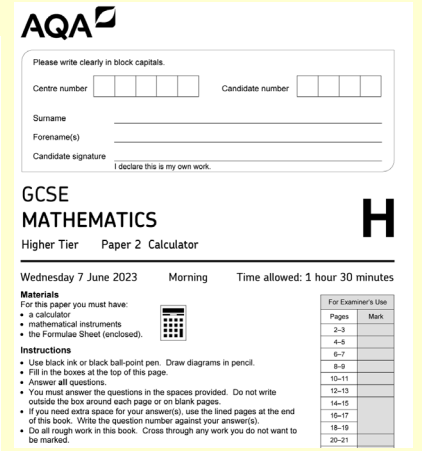
Active revision

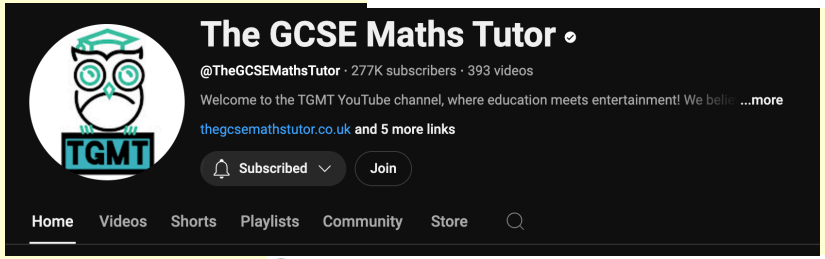
Formula for area of a circle

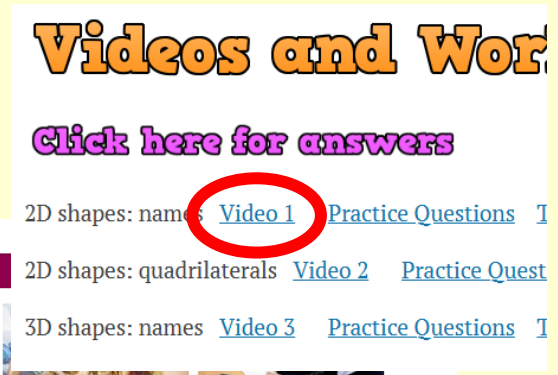
Formula for compound interest

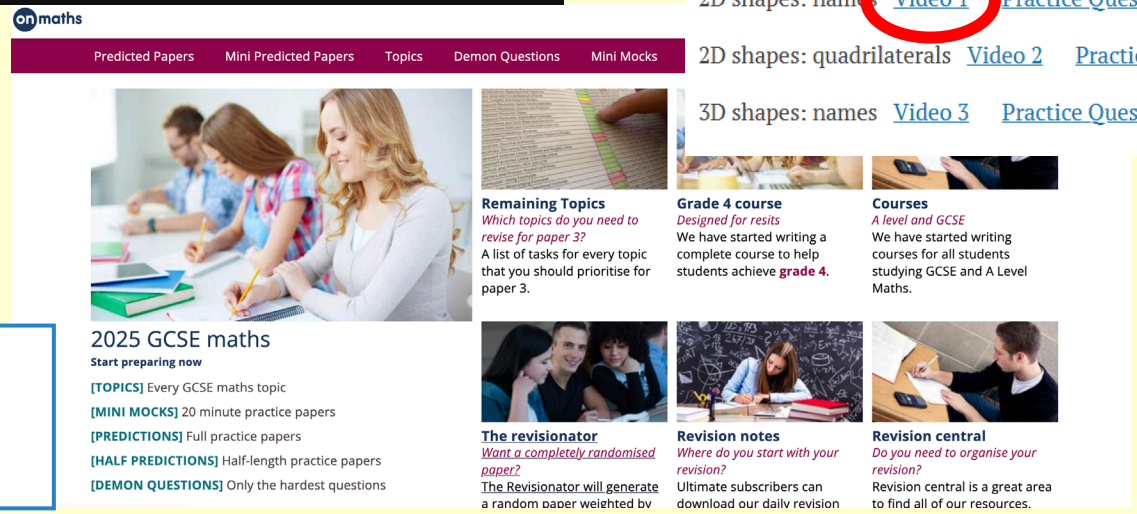


Q	Answer	Mark	Comments
1(a)	(0).35	B1	oe
	Additional Guidance		
	Mark the answer line. If this is blank, mark the working		
	If values are given in one or more forms, either on the answer line or in working with nothing on the answer line, all values must be correct		
	eg1 $0.35 = \frac{7}{20}$ on answer line		B1
	eg2 $\frac{35}{100}$ and 3.5 in working with $\frac{35}{100}$ on answer line		B1
	eg3 $\frac{35}{100}$ and 3.5 in working with 3.5 on answer line		B0
	eg4 $\frac{35}{100}$ and 3.5 in working with answer line blank		B0

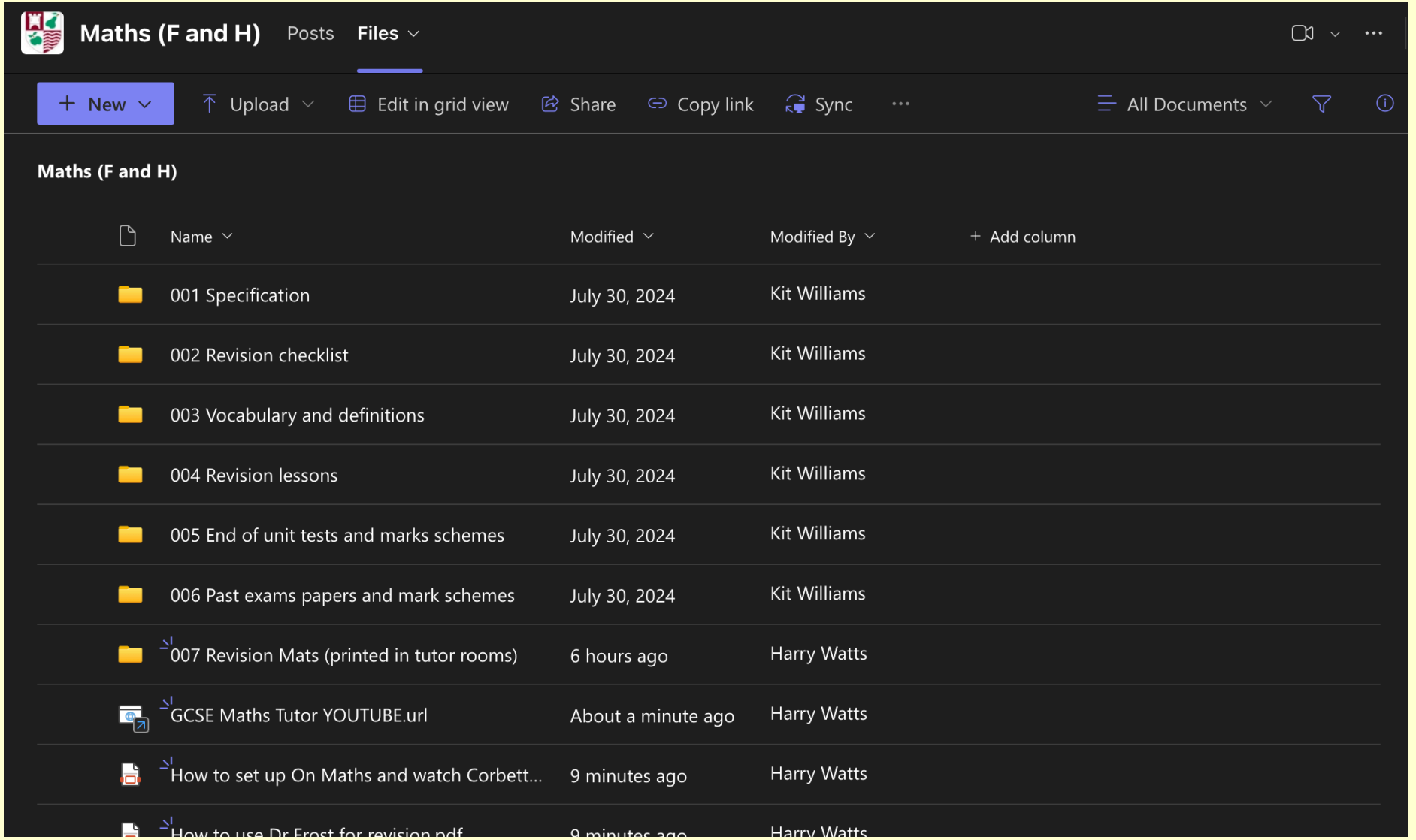








Revision Team (KS4)

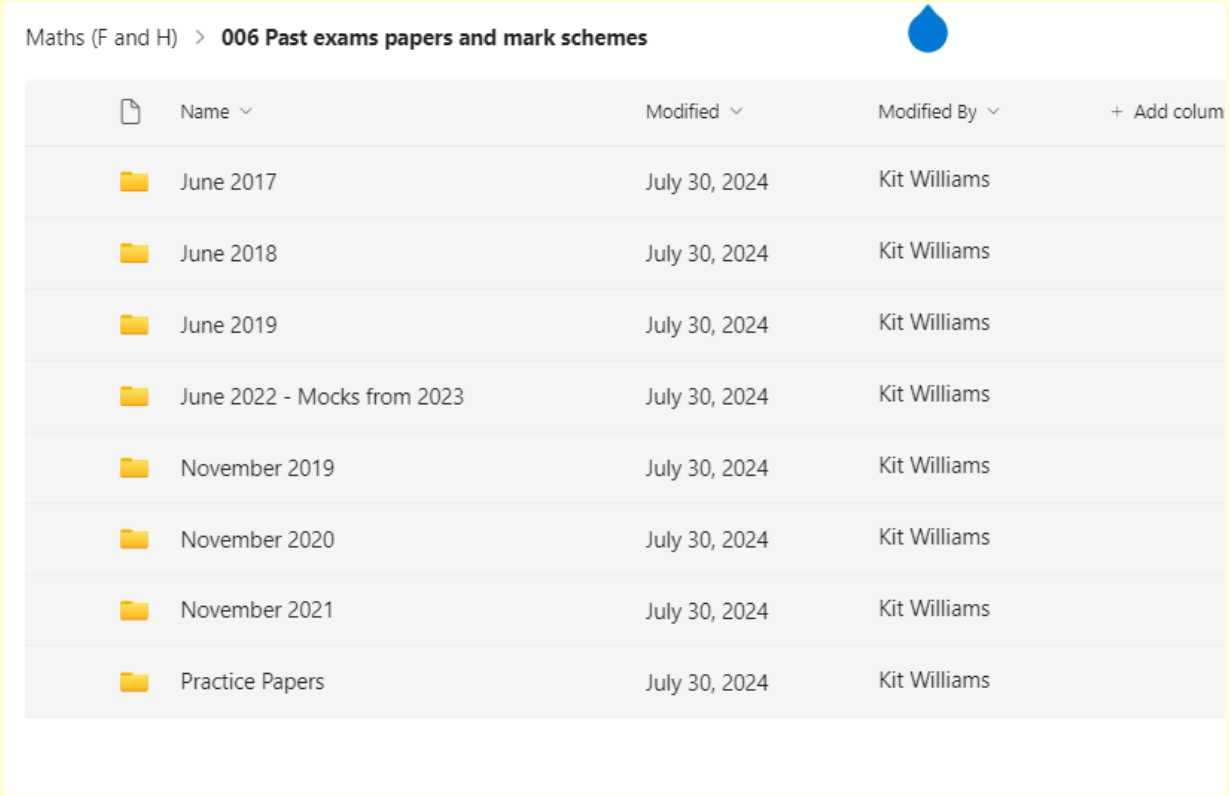


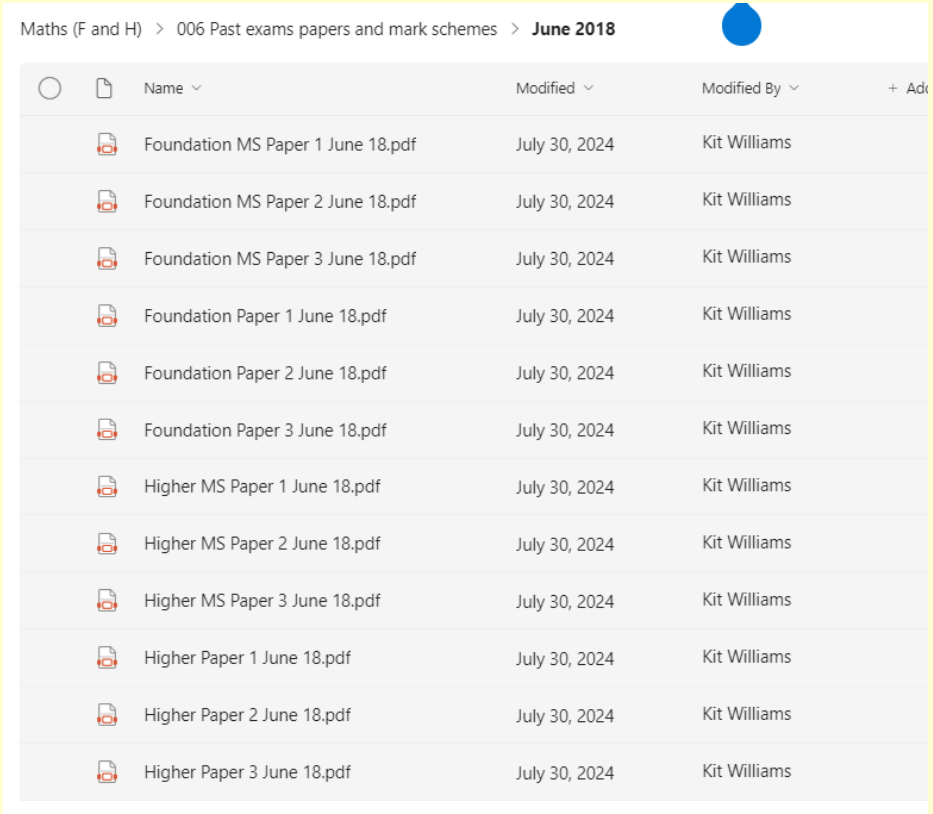
We will continue to add more to this channel throughout the rest of the year

https://teams.microsoft.com/v2/

https://ormistonacademiestrust.sharepoint.com/:f:/r/sites/msteams_d7b9cb/Shared%20Documents/Maths%20(F%20and%20H)?csf=1&web=1&e=on8KYi

Using Exam Questions (KS4)

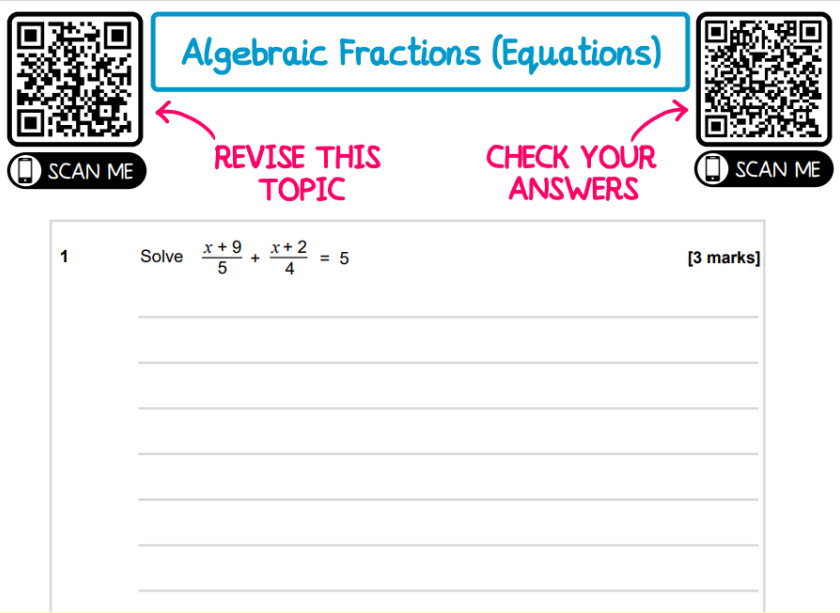




They can access previous exams through teams and then mark their answers using the mark scheme.
They can use Corbett Maths and their revision guide to help with answering questions they find challenging.

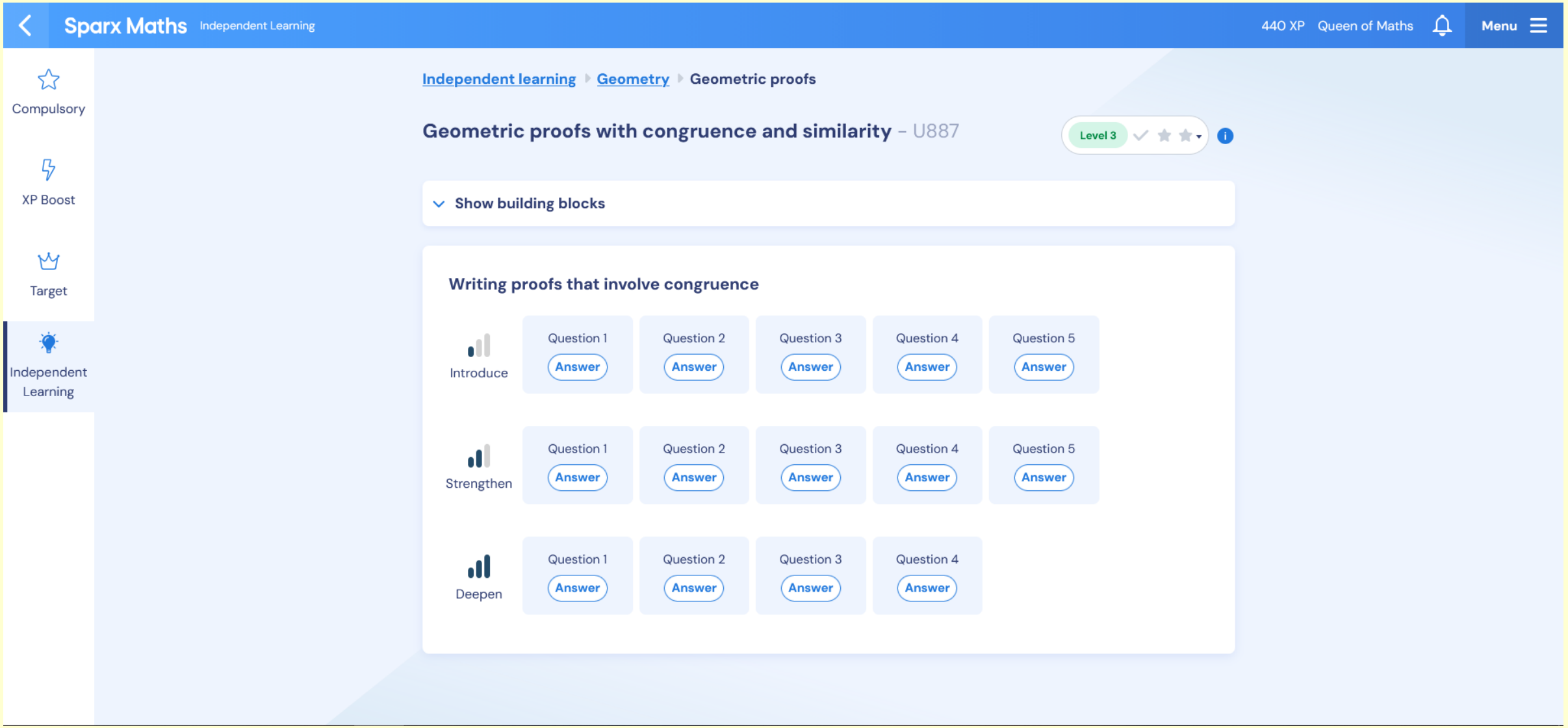
Using Exam Questions (KS4)

First Class Maths has targeted topic revision with revision videos and they can check their answers.



Topic	Video Explanation	Exam Questions	Solutions	Grade	Past Series Appearance*
Algebraic Fractions (Equations)	▶	PDF	PDF	8+	36%
Algebraic Fractions (Simplifying)	▶	PDF	PDF	8+	91%
Algebraic Proof	▶	PDF	PDF	8+	55%
Circle Theorems Proofs	▶	PDF	PDF	8+	0%
Equation of a Tangent to a Circle	▶	PDF	PDF	8+	36%
Non-linear Simultaneous Equations	▶	PDF	PDF	8+	45%
Quadratic Inequalities	▶	PDF	PDF	8+	45%
Rationalise the Denominator	▶	PDF	PDF	8+	55%
Speed Time Graphs	▶	PDF	PDF	8+	91%
Transformations of Graphs	▶	PDF	PDF	8+	64%
Vectors (Higher)	▶	PDF	PDF	8+	82%
3D Trig and Pythagoras	▶	PDF	PDF	7+	55%
Algebraic Fractions (Operations)	▶	PDF	PDF	7+	91%
Area of a Triangle (Using Trig)	▶	PDF	PDF	7+	73%

Using Sparx as a revision resource



Using CorbettMaths as a revision resource

5-a-day GCSE 9-1

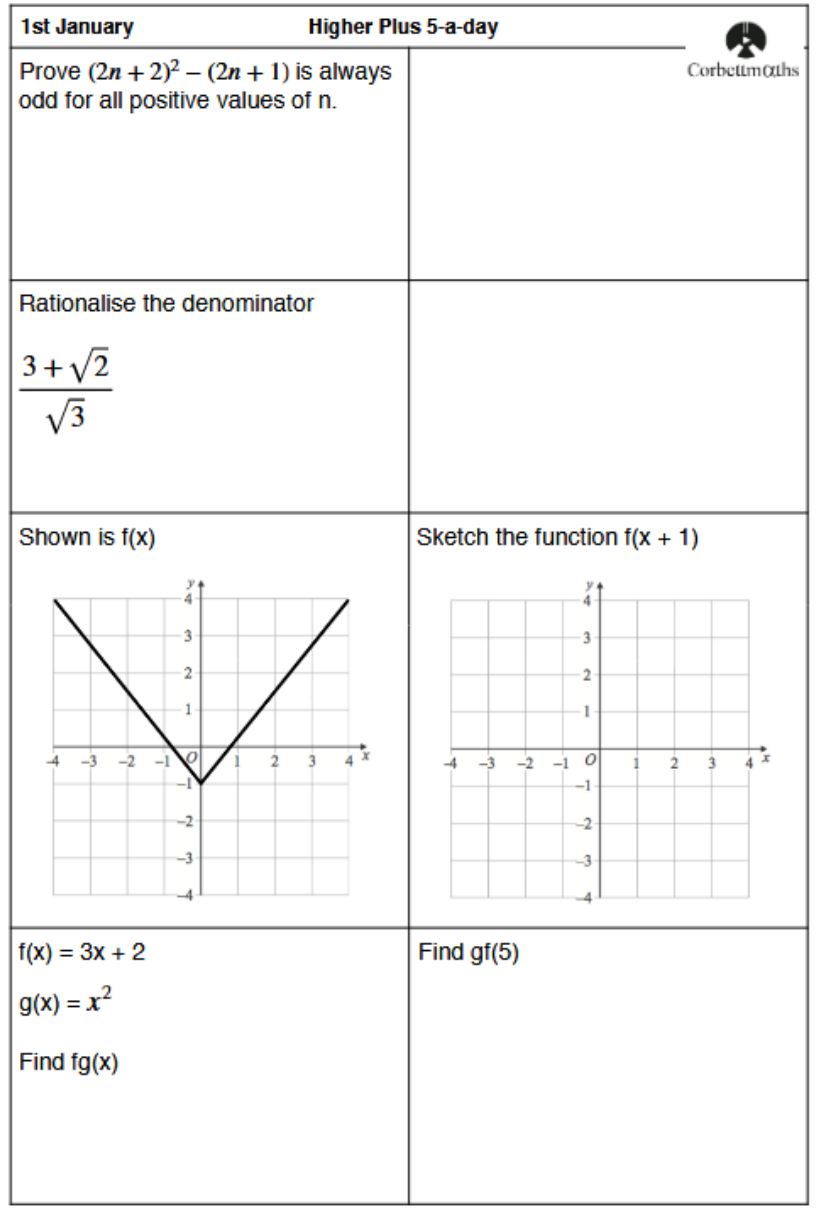
Numeracy 5aday – broadly designed for students aiming for Grades 1, 2 and 3.

Foundation – broadly designed for students aiming for Grades 3 and 4.

Foundation Plus – broadly designed for students aiming for Grades 4, 5 and 6.

Higher – broadly designed for students aiming for Grades 6 and 7.

Higher Plus – broadly designed for students aiming for Grades 8 and 9.



1st January **Higher Plus 5-a-day**

Corbettmaths

Prove $(2n + 2)^2 - (2n + 1)$ is always odd for all positive values of n.

Rationalise the denominator

$$\frac{3+\sqrt{2}}{\sqrt{3}}$$

Shown is f(x)

Sketch the function f(x + 1)

f(x) = 3x + 2

$g(x) = x^2$

Find fg(x)

Find gf(5)

Using CorbettMaths as a revision resource

Videos and Worksheets

Click here for answers

2D shapes: names Video 1 Practice Questions Textbook Exercise

2D shapes: quadrilaterals Video 2 Practice Questions Textbook Exercise

3D shapes: names Video 3 Practice Questions Textbook Exercise

3D shapes: nets Video 4 Practice Questions Textbook Exercise

3D shapes: vertices, edges, faces Video 5 Practice Questions Textbook Exercise

Addition: column method Video 6 Practice Questions Textbook Exercise

Question 1: Solve the following equations using the quadratic formula. Give your answers to 1 decimal place.

(a) $x^2 + 5x + 1 = 0$ (b) $2x^2 + 7x + 2 = 0$ (c) $4x^2 + 8x + 3 = 0$

(d) $x^2 + 2x - 4 = 0$ (e) $3x^2 + 4x - 5 = 0$ (f) $2x^2 + 5x - 10 = 0$

(g) $x^2 - 4x + 2 = 0$ (h) $7x^2 - 6x + 1 = 0$ (i) $3x^2 - 10x + 4 = 0$

(j) $x^2 - x - 11 = 0$ (k) $x^2 - 6x - 20 = 0$ (l) $2x^2 - x - 9 = 0$

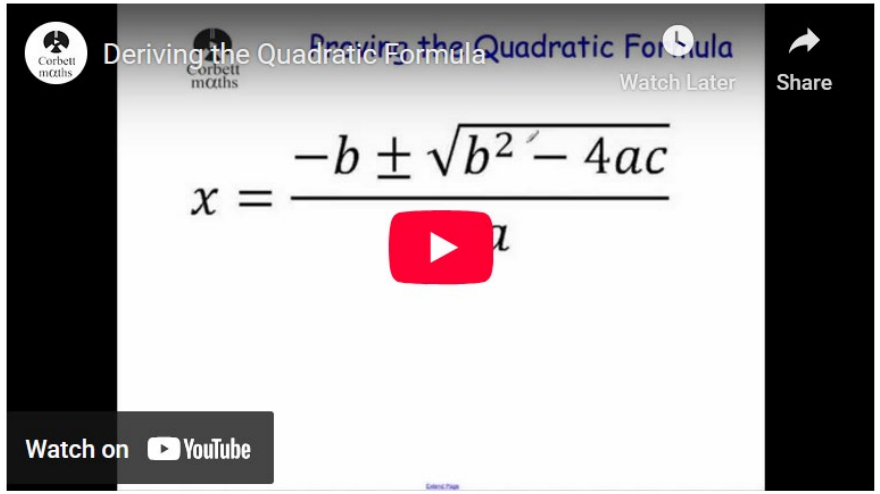
(m) $9x^2 - 12x + 2 = 0$ (n) $4x^2 + 4x + 1 = 0$ (o) $8x^2 - 8x - 9 = 0$

(p) $2x^2 + 3x - 100 = 0$ (q) $3x^2 - 23x - 67 = 0$ (r) $2x^2 + 16x + 1 = 0$

Question 2: Solve the following equations using the quadratic formula. Give your answers to 2 decimal places.

(a) $x^2 + 7x = 20$ (b) $2x^2 = 9x + 40$ (c) $3x^2 = 10 - 2x$

(d) $x^2 - 8 = x$ (e) $7x = 13 - x^2$ (f) $4x^2 - 9 = 2x^2 + 4x$



Using CorbettMaths as a revision resource

A Bit of Everything Paper

[AQA Higher – A Bit of Everything Paper]

[AQA Higher – A BIT OF EVERYTHING answers Q1 to Q50]

[AQA Higher – A BIT OF EVERYTHING answers Q51 to Q98]

Practice Papers

[Higher Set A Paper 1 – Non Calculator]

[Higher Set A Paper 2 – Calculator]

[Higher Set A Paper 3 – Calculator]

[Higher Set B Paper 1 – Non Calculator]

[Higher Set B Paper 2 – Calculator]

[Higher Set B Paper 3 – Calculator]

[Higher Set C Paper 1 – Non Calculator]

[Higher Set C Paper 2 – Calculator]

[Higher Set C Paper 3 – Calculator]

[Higher Set D Paper 1 – Non Calculator]

[Higher Set D Paper 2 – Calculator]

[Higher Set D Paper 3 – Calculator]

A Bit of Everything Paper

[AQA Foundation – A Bit of Everything Paper]

[AQA Foundation – A BIT OF EVERYTHING answers Q1 to Q50]

[AQA Foundation – A BIT OF EVERYTHING answers Q51 to Q116]

Practice Papers

[Foundation Set A Paper 1 – Non Calculator]

[Foundation Set A Paper 2 – Calculator]

[Foundation Set A Paper 3 – Calculator]

[Foundation Set B Paper 1 – Non Calculator]

[Foundation Set B Paper 2 – Calculator]

[Foundation Set B Paper 3 – Calculator]

[Foundation Set C Paper 1 – Non Calculator]

[Foundation Set C Paper 2 – Calculator]

[Foundation Set C Paper 3 – Calculator]

[Foundation Set D Paper 1 – Non Calculator]

[Foundation Set D Paper 2 – Calculator]

[Foundation Set D Paper 3 – Calculator]

Using GCSE Maths Revision Guides

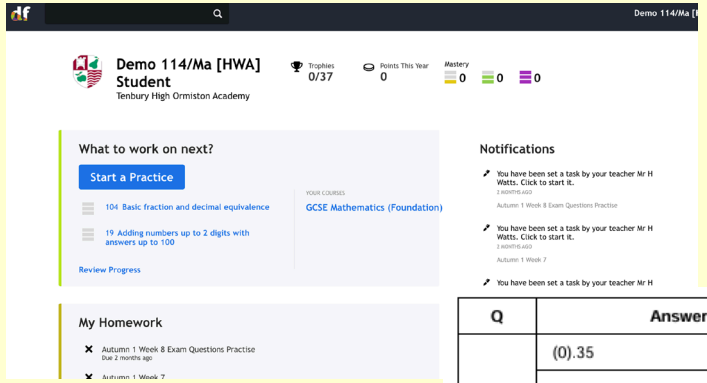
- Revision guides provide clear summaries of key GCSE Maths topics
  - They are useful for refreshing knowledge before practising questions
  - Students should combine reading with practice, not just passive reading
  - Highlighting key points and making notes can help improve recall but they only way to imbed the learning is to do example questions

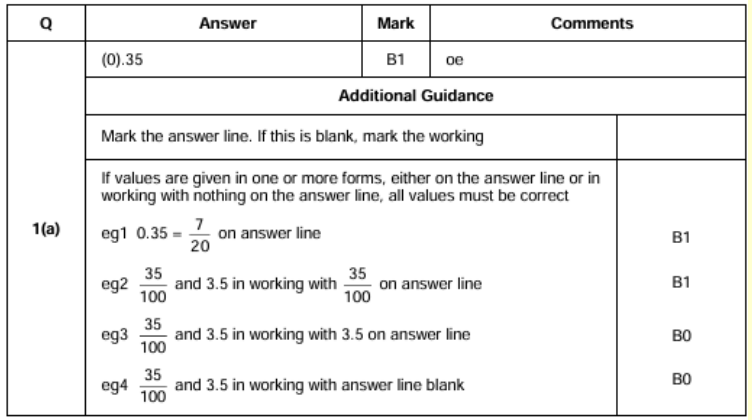
Time to assess the impact of your revision!

Assess the impact of your revision!

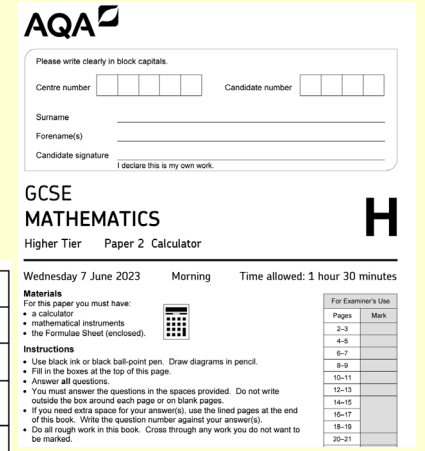
What do you /don't you know?

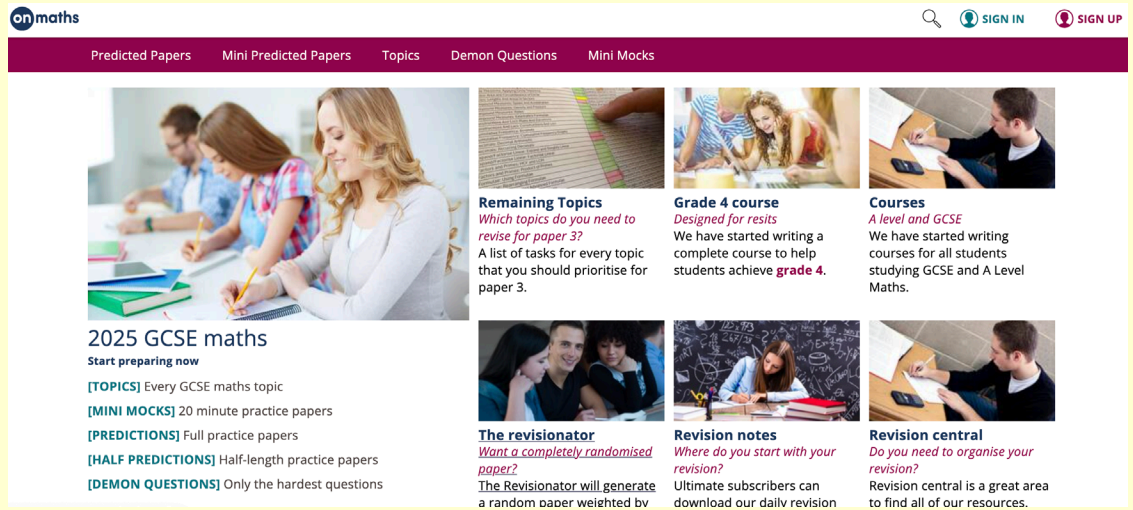
Active revision





Q	Answer	Mark	Comments
1(a)	(0).35	B1	oe
	Additional Guidance		
	Mark the answer line. If this is blank, mark the working		
	If values are given in one or more forms, either on the answer line or in working with nothing on the answer line, all values must be correct		
	eg1 $0.35 = \frac{7}{20}$ on answer line	B1	
	eg2 $\frac{35}{100}$ and 3.5 in working with $\frac{35}{100}$ on answer line	B1	
	eg3 $\frac{35}{100}$ and 3.5 in working with 3.5 on answer line	B0	
	eg4 $\frac{35}{100}$ and 3.5 in working with answer line blank	B0	





Common Maths Revision Mistakes to Avoid

- Cramming revision into long sessions just before exams
  - Only revising topics students already feel confident with
  - Reading revision guides without practising questions
  - Avoiding difficult topics instead of revisiting them
  - Not checking answers or learning from mistakes

What Effective Maths Revision Looks Like

- Short, regular revision sessions spread over time
  - A mix of topics to keep all skills active in memory
  - Using resources: Sparx, First Class Maths, Corbett Maths, Teams
  - Practising the skill then building to exam-style questions
  - Reviewing mistakes and revisiting weaker topics

GCSE Maths Exam Technique Reminders

- Always show full working, even if unsure of the final answer
  - Marks are often awarded for correct methods
  - Encourage students to check answers if time allows
  - Use estimation to see if answers are sensible
  - Remind students to read questions carefully and BUG key information

Box the command word
(this will help you structure your answer)

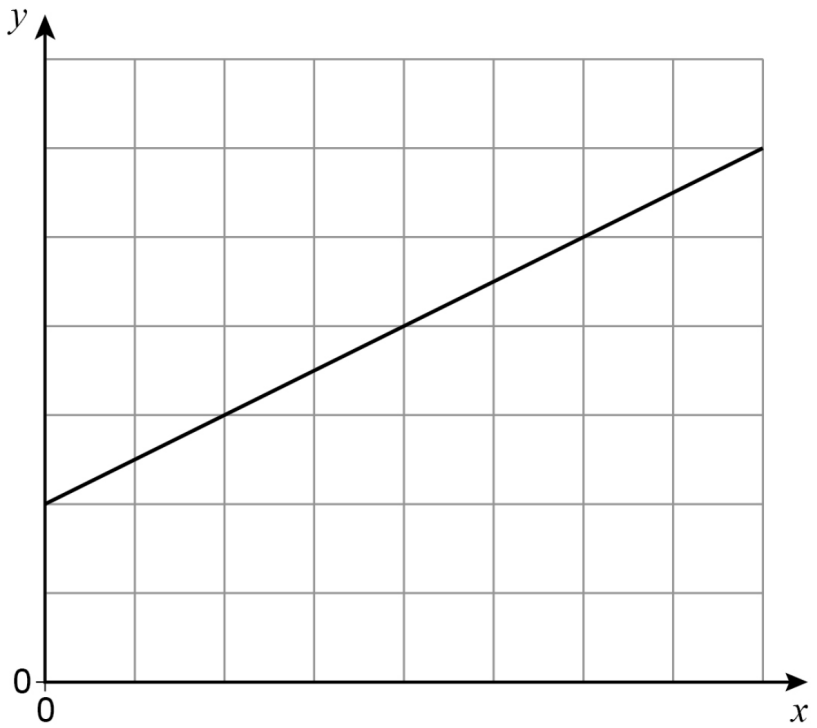
Underline the key words
(this will help you jog your memory of any knowledge that may be relevant to the question)

Go back over the question
(this will help you check your understanding of the question; for longer responses, reread the question regularly to stay on track)

Identify the topic

Identify the topic by looking for key vocabulary in the question

A straight line is drawn on the centimetre grid.



Fay assumes that the scale is 1 cm represents 1 unit.

(a) Use her assumption to work out the gradient of the line.

[1 mark]

Identify what you are being asked to do

Command words are important.

The height of Zak is 1.86 metres.

The height of Fred is 1.6 metres.

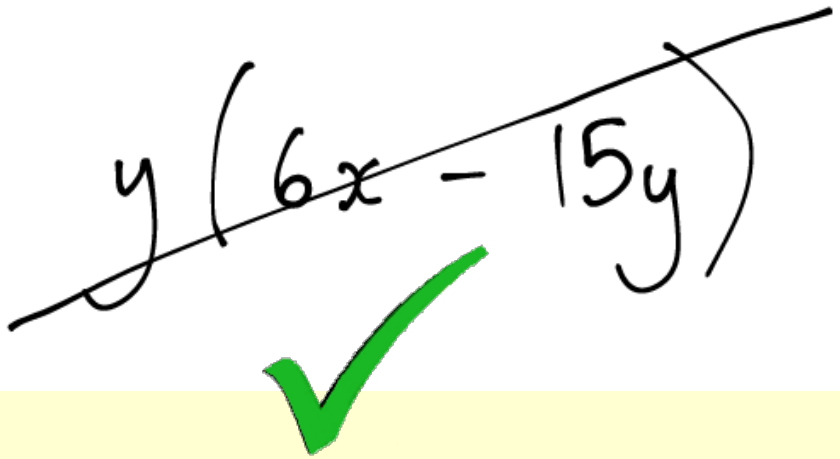
Write the height of Zak as a fraction of the height of Fred.

Give your answer in its simplest form.

Layout: crossing out

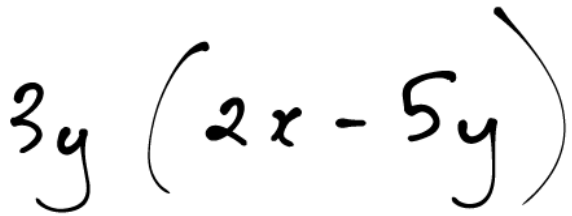
Make sure your working out is visible, even if you do cross out.

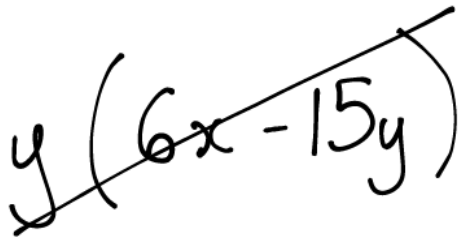
Factorise $6xy - 15y^2$



If you change your working out, cross out the bit you don't want marked.

Factorise $6xy - 15y^2$





Layout: writing your answers

You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.

Information • You may ask for more answer paper, graph paper and tracing paper. These must be tagged securely to this answer book.

his pay is £80

he saves 30% of this pay.

How many **more** weeks must he save?

[4 marks]

30% of £80 10% is £8 3 X 8 = £24

2345
−96
259

24 X 10 = 240
24 X 1 = 24
264

11 weeks

Write the answer on the answer line.

Answer 11 weeks

Answering with statements

Jing has £2450

She saves some and gives the rest to her four brothers.

money saved : money given to brothers = 2 : 5

She gives each of her **four** brothers the **same** amount.

Does each brother receive more than £430 ?

You **must** show your working.

[4 marks]

2 + 5 = 7

2 × 50 ÷ 7 = 350

2 × 350 = 700 5 × 350 = 1750

1750 ÷ 4 = 437·50

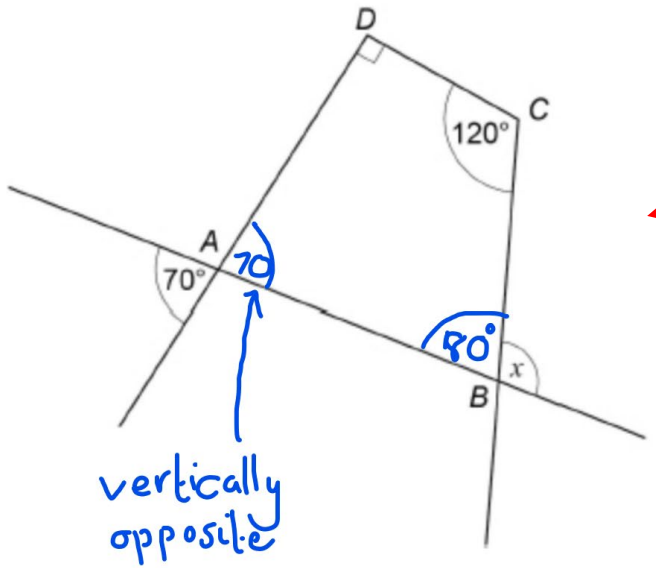
Yes. Each brother receives £437·50

Show your calculations.

Answer this question.

Giving reasons

Sides are extended as shown.



Not drawn accurately

Show that $x = 100°$

$90 + 70 + 120 = 280°$

$360 - 280 = 80°$ Angles in a quadrilateral add up to $360°$.

$x = 180 - 80$

$x = 100°$

Angles on a straight line add up to $180°$.

(Total 3 marks)

Write on the diagram – it counts as working out!

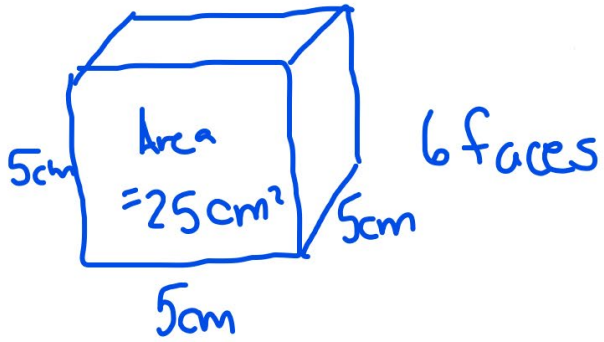
Use the correct key words *and* write down the matching calculations.

Draw a diagram

A cube has a total surface area of 150 cm^2

Work out the volume of the cube.

$150 \div 6 = 25 cm^2$



$25cm^2$ $\sqrt{25} = 5cm$

Volume $5 \times 5 \times 5 = 125 cm^3$

125 ..... cm^3

(Total for question = 4 marks)

If it's tricky – draw a piccie!

Write down the units if they're not there

A reel holds 9.5 metres of ribbon.

2 pieces of ribbon are cut from the reel.

Each piece is 20 centimetres long.

What length of ribbon is left on the reel?

State the units of your answer.

[3 marks]

Answer _____

You must write down your units

Here are the heights, in centimetres, of some children.

98 103 91 85 159 102 91

Which height is an outlier?

[1 mark]

Answer _____ cm

The units are already on the answer line

Show your working out (for everything!)

Sam wants to buy a camera for £345

He has already saved £96

Each week

his pay is £80

he saves 30% of this pay.

How many **more** weeks must he save?

[4 marks]

30% of £80 10% is £8 3 x 8 = £24

345 − 96 = 249

24 x 10 = 240

24 x 1 = 24

264

11 weeks

Answer 11 weeks

19	345 – 96 or 249	M1	
	80 ÷ 10 × 3 or 24	M1	oe
	their 249 ÷ their 24 or their 24 × 10 or their 24 × 11	M1	Condone 345 ÷ 24
	11	A1	

Check your answer makes sense

Billy wants to buy these tickets for a show.

4 adult tickets at £15 each

2 child tickets at £10 each

A 10% booking fee is added to the ticket price.

3% is then added for paying by credit card.

Work out the **total** charge for these tickets when paying by credit card.

£1796.4

8 ?

38 tickets

?

The Formula Sheet

Perimeter, area and volume

Where a and b are the lengths of the parallel sides and h is their perpendicular separation:

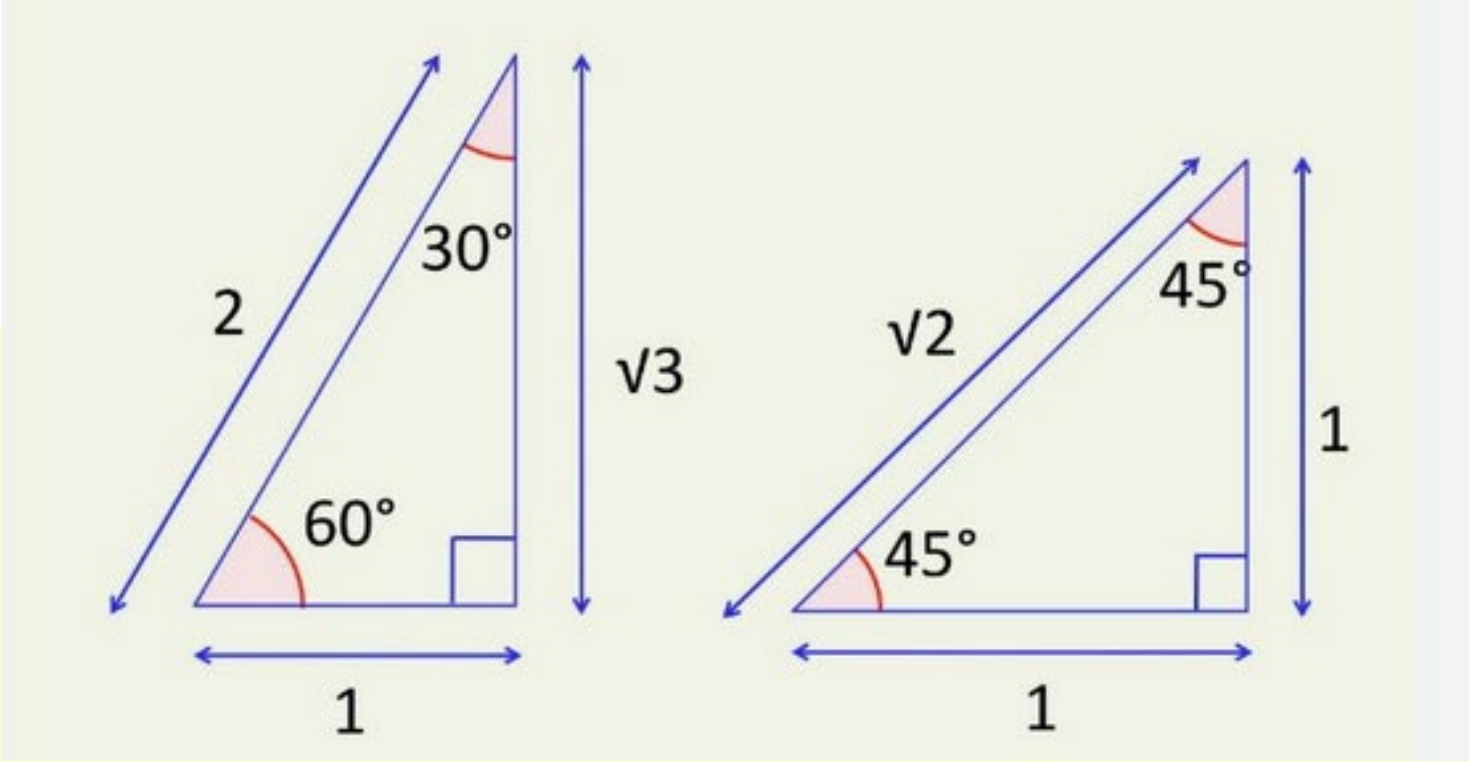
$$\text{Area of a trapezium} = \frac{1}{2}(a+b)h$$

Volume of a prism = area of cross section × length

Where r is the radius and d is the diameter:

$$\text{Circumference of a circle} = 2\pi r = \pi d$$

$$\text{Area of a circle} = \pi r^2$$



How Parents Can Help with Maths Revision

- Make sure your child has a scientific calculator and knows how to use it, this should be the same one they use in their exam so they know where each of the important keys are

Equipment needed

Materials

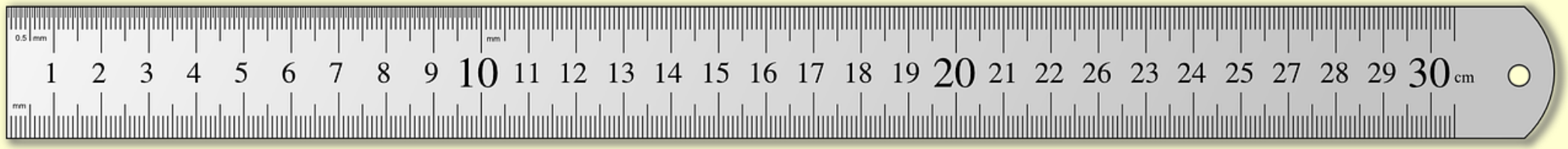
For this paper you must have:

- mathematical instruments

RULER

Used for:

- Drawing straight lines
- Measuring the length of lines



Equipment needed

Materials

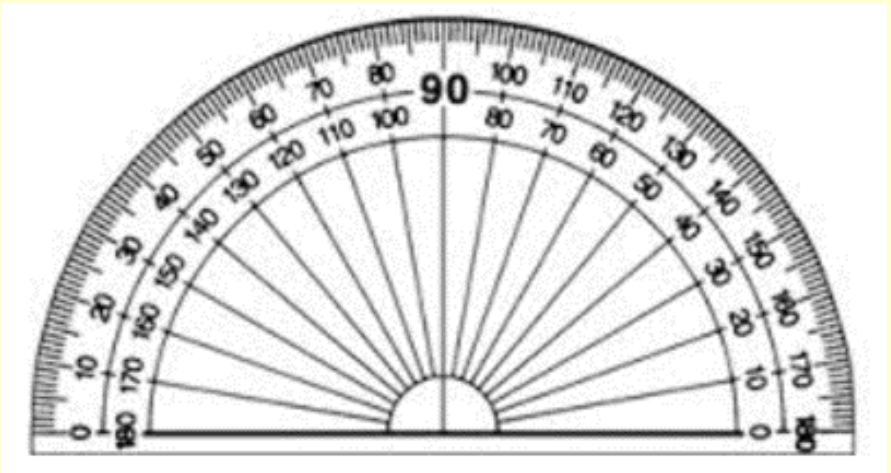
For this paper you must have:

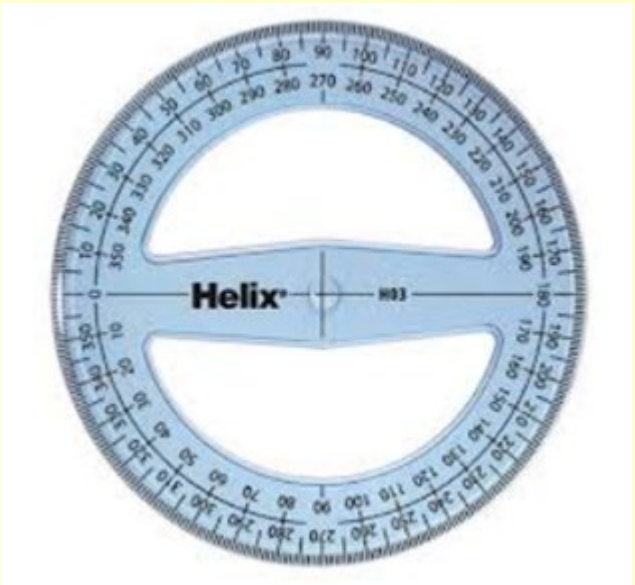
- mathematical instruments

PROTRACTOR

Used for:

- Drawing angles
- Measuring angles





Equipment needed

Materials

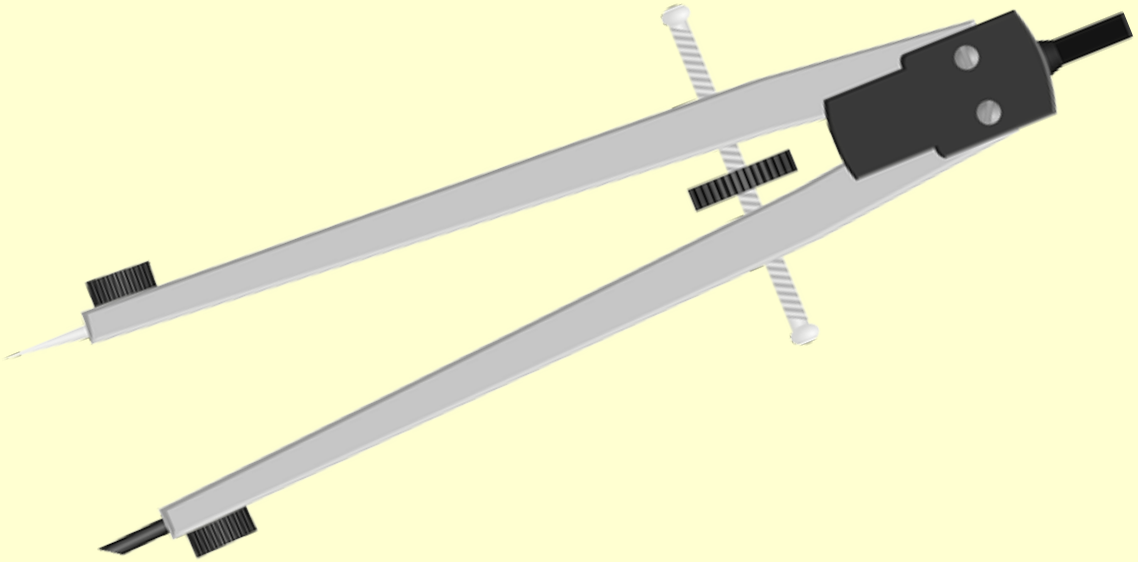
For this paper you must have:

- mathematical instruments

COMPASS

Used for:

- Drawing circles
- Drawing arcs



Equipment needed

Materials

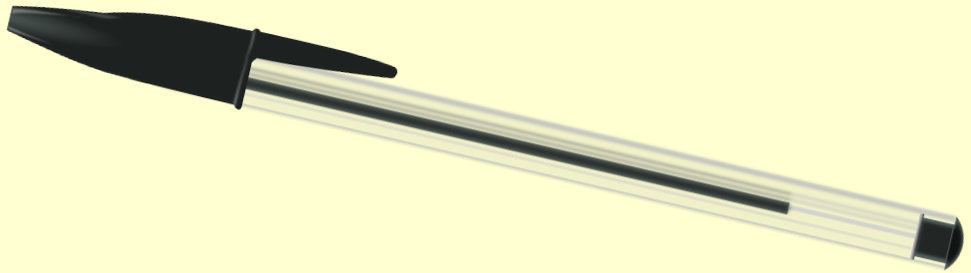
For this paper you must have:

- mathematical instruments

PEN

Used for:

- writing



PENCIL & ERASER

Used for:

- Drawing/editing diagrams
- Drawing/editing graphs

Equipment needed

Materials

For this paper you must have:

TRACING PAPER

Used for:

- Tracing shapes/diagrams

YOU CAN ASK FOR THIS