



THE

SUTHERS

SCHOOL

Tassomai

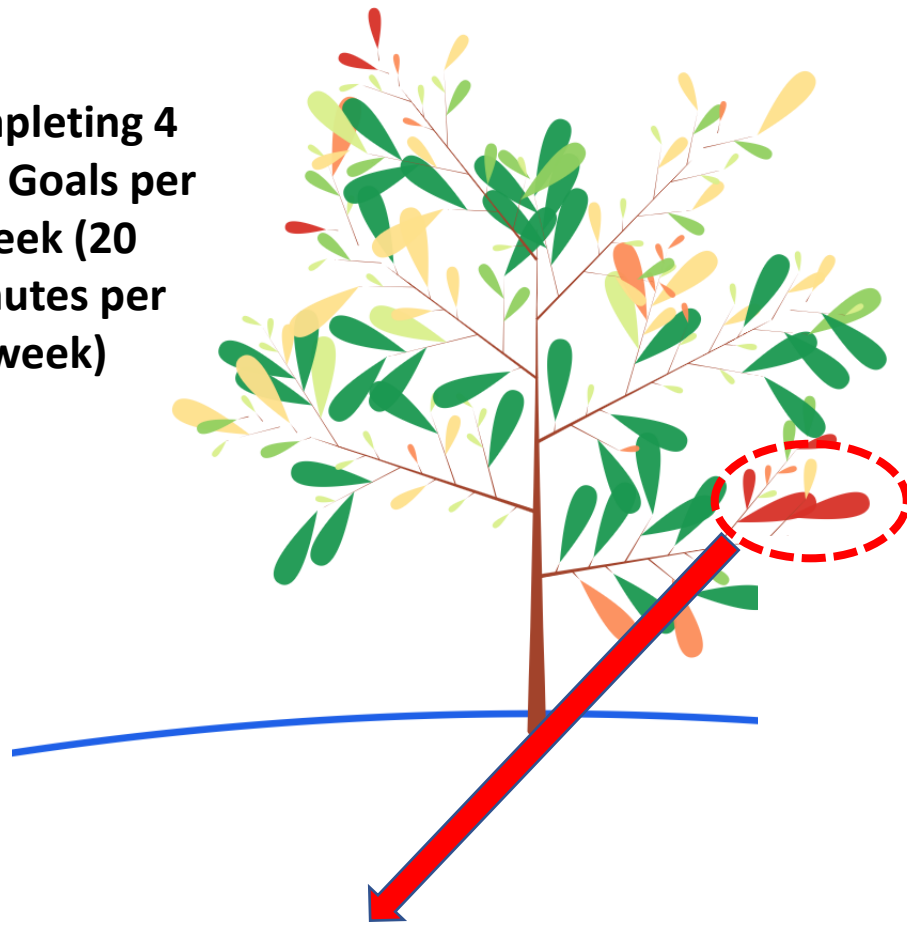
Tassomai Completion v Mock Exam Grades

- 9 weeks before the exams start on Monday 6th May.
- Attend all lessons on time and fully engage.
- Minimum of 4 Daily Goals per week.
- Grades 9-7 need approximately 10-12 hours of revision per subject.
- 25 minutes followed by a short break.
- Remove distractions.

Course Completion	RAG
87.35%	Green
82.23%	Green
77.71%	Green
76.22%	Green
67.99%	Green
65.69%	Green
64.43%	Green
50.67%	Yellow
44.66%	Red
44.25%	Red
42.17%	Red
39.24%	Red
32.53%	Yellow
31.94%	Red
31.01%	Red
30.79%	Red
30.01%	Red
28.78%	Red
26.45%	Red
26.22%	Red
24.52%	Red
23.96%	Red
23.29%	Red
22.81%	Red
21.29%	Red
21.18%	Red
20.77%	Red
16.58%	Red
16.51%	Red
16.47%	Red
13.76%	Red
12.98%	Red
12.76%	Red
10.87%	Red
10.16%	Red
9.76%	Red
8.12%	Red
8.01%	Red
7.08%	Red
6.45%	Red

The Tassomai Tree

**Completing 4
Daily Goals per
week (20
minutes per
week)**



**Identifies your child's specific area of
development**

**Completing 1-2
Daily Goals per
week (5-10
minutes per
week)**



Tassomai Student Dashboard

- Quiz
- Tree
- Usage
- Review
- Topics
- Resources**

Science ▾

Quiz Resources

We've picked out some resources to help you with some of the areas you are finding hardest:

Sexual & Asexual Reproduction; Advantages & Disadvantage



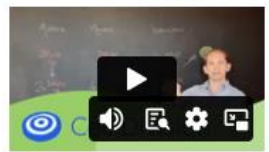
Sexual reproduction, meiosis and gamete formation

Reversible Reactions & Energy Changes



Reversible reactions

Sexual & Asexual Reproduction; Advantages & Disadvantage



Cell Division

- Account
- How It Works
- Log out

Tassomai Parent Dashboard

[Science](#)

[Maths](#)

[English](#)

[History](#)



This Week



Weekly Goal

38.4%



Accuracy

86.7%



Mo

Tu

We

Th

Fr

Sa

Su



■ Daily Goal

■ Bonus Goal

Weakest Topic:

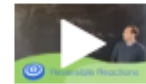
Properties of Electromagnetic Waves



[View Tree](#)

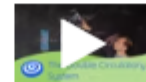
Recommended Resources:

Reversible Reactions & Energy Changes



Reversible Reactions

The Heart & Blood Vessels



The Double Circulatory System

Growth & Development



Sexual reproduction, meiosis and gamete formation

Topic Labels

Red and Orange Focus

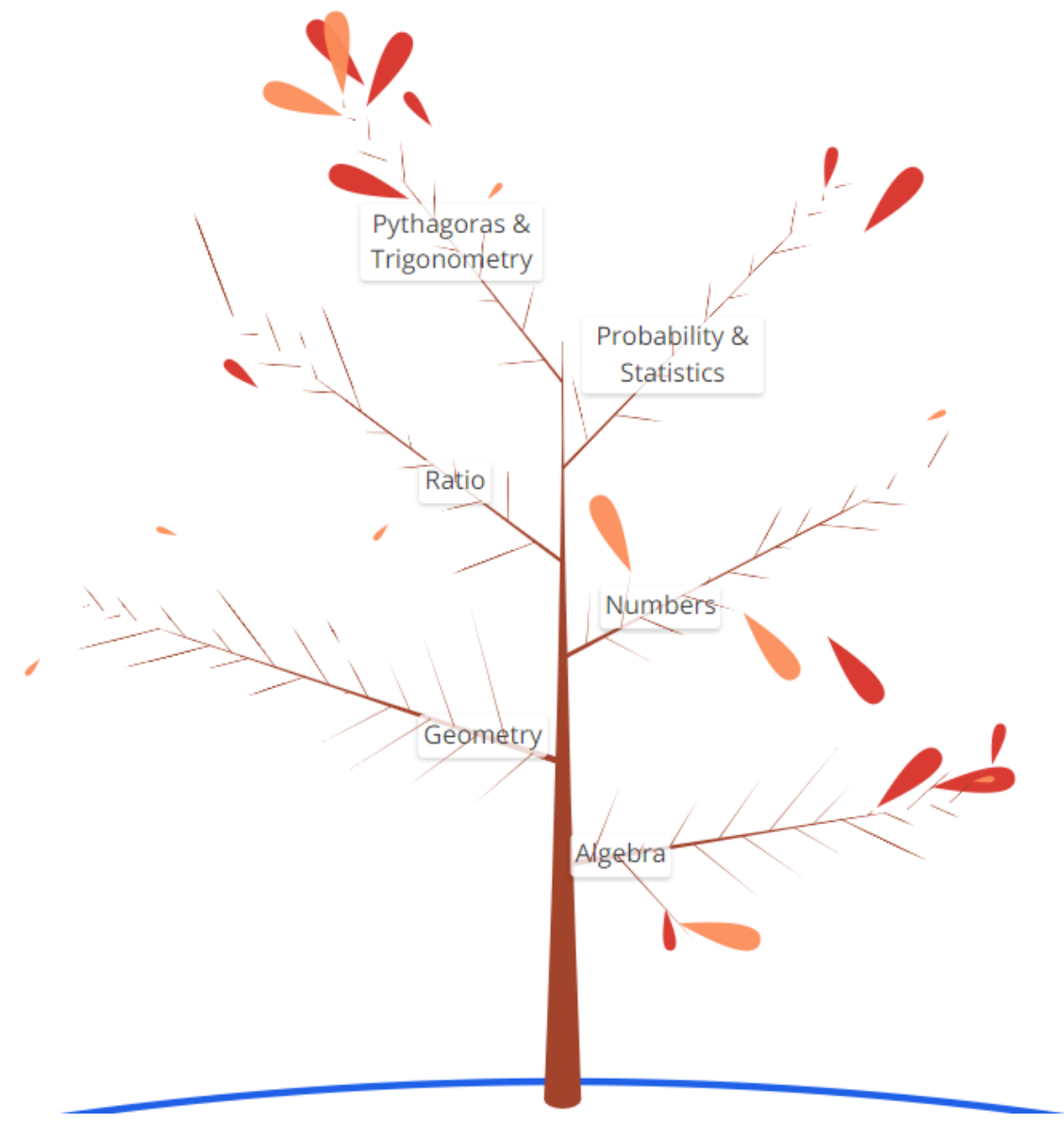
The Tassomai Tree [Maths]



The Tassomai Tree [Maths]

Topic Labels

Red and Orange Focus



Topic Labels

Red and Orange Focus

Maths / Pythagoras & Trigonometry / Trigonometry

Last Seen: 7/11/23

Last 3 Attempts: ✓ ✗ ✗

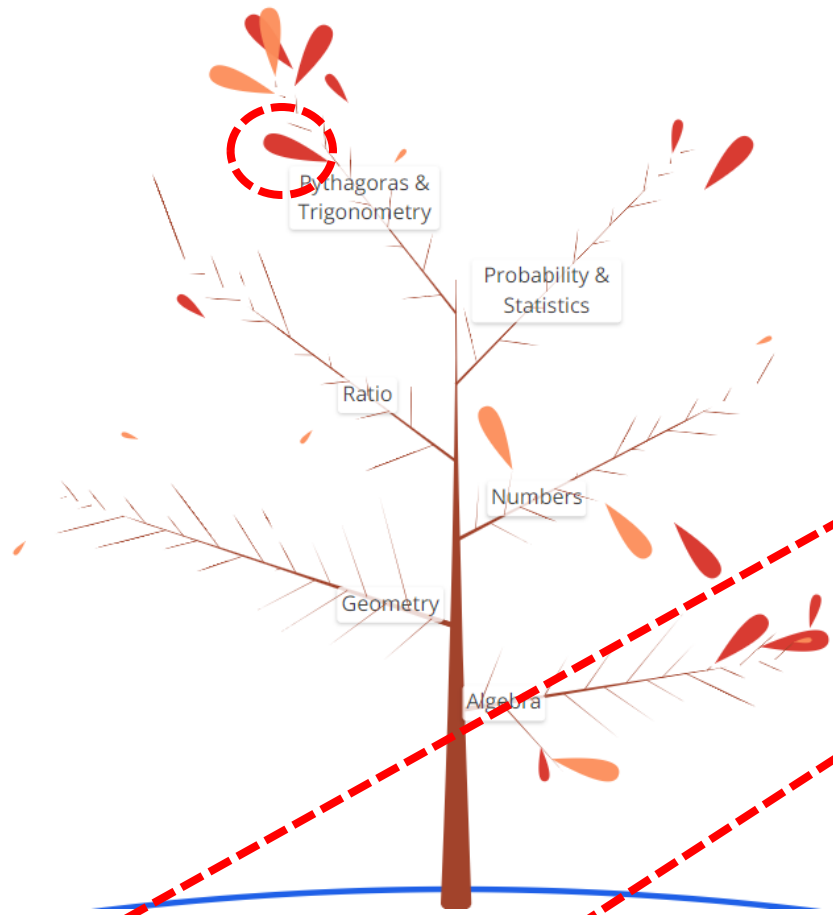
If $\cos(74^\circ) = \frac{45}{y}$, then y is...

$\frac{45}{\cos(74^\circ)}$ ✓

$45 \times \cos(74^\circ)$

$\cos^{-1}\left(\frac{45}{74}\right)$

$\frac{\cos(74^\circ)}{45}$ ✗



ⓘ

Flash Cards

Front

Write the question

If $\cos(74^\circ) = \frac{45}{y}$, then y is...

Back

Write the answer

$\frac{45}{\cos(74^\circ)}$

The Tassomai Tree & Flash Cards

Revision Guide

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Throughout this book you'll see grade stamps like these:
You can use these to focus your revision on easier or harder work.
But remember — to get a top grade you have to know **everything**, not just the hardest topics.

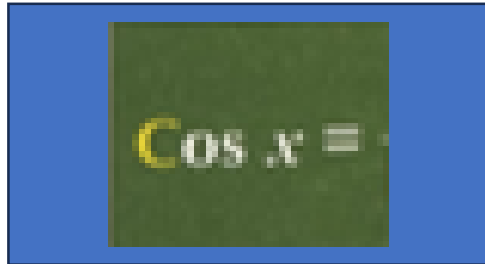


Revision Guide & Flash Cards

Flash Cards

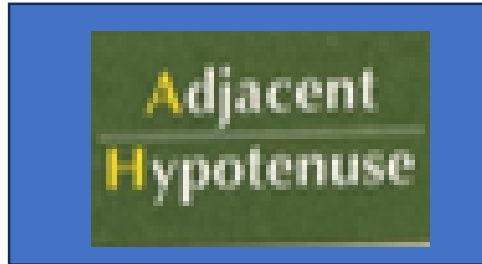
Front

Write the question



Back

Write the answer



Trigonometry — Sin, Cos, Tan

Trigonometry — it's a big scary word. It's **important** and **always cropping up** in exams, but if you just follow the method below it won't be a big scary topic.

The 3 Trigonometry Formulas



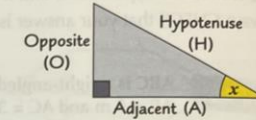
There are three basic **trig formulas** — each one links **two sides** and an **angle** of a **right-angled triangle**.

$$\sin x = \frac{\text{Opposite}}{\text{Hypotenuse}}$$

$$\cos x = \frac{\text{Adjacent}}{\text{Hypotenuse}}$$

$$\tan x = \frac{\text{Opposite}}{\text{Adjacent}}$$

- The **Hypotenuse** is the **LONGEST SIDE**.
- The **Opposite** is the side **OPPOSITE** the angle **being used** (x).
- The **Adjacent** is the (other) side **NEXT TO** the angle **being used**.



- 1) Whenever you come across a trig question, work out which **two sides** of the triangle are involved in that question — then **pick the formula** that involves those sides.
- 2) **To find the angle** — use the **inverse**, i.e. press **SHIFT** or **2nd**, followed by **sin**, **cos** or **tan** (and make sure your calculator is in DEG mode) — your calculator will display **sin⁻¹**, **cos⁻¹** or **tan⁻¹**.
- 3) Remember, you can only use the sin, cos and tan formulas above on **right-angled triangles** — you may have to add lines to the diagram to create one.

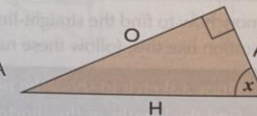
Formula Triangles Make Things Simple



There's more about formula triangles on p.105 if you need to jog your memory.

A handy way to tackle trig questions is to convert the formulas into **formula triangles**. Then you can use the **same method every time**, no matter which side or angle is being asked for.

- 1) **Label** the three sides **O, A and H** (Opposite, Adjacent and Hypotenuse).
- 2) Write down **from memory** '**SOH CAH TOA**'.
- 3) Decide which **two sides** are **involved**: O,H A,H or O,A and select **SOH, CAH or TOA** accordingly.
- 4) Turn the one you choose into a **FORMULA TRIANGLE**:



In the formula triangles, S represents sin x , C is cos x , and T is tan x .

- 5) **Cover up** the thing you want to find (with your finger), and write down whatever is left showing.
- 6) **Translate into numbers** and work it out.
- 7) Finally, **check** that your answer is **sensible**.

If you can't make SOH CAH TOA stick, try using a mnemonic like 'Strange Orange Hamsters Creep Around Houses Tripping Over Ants'.

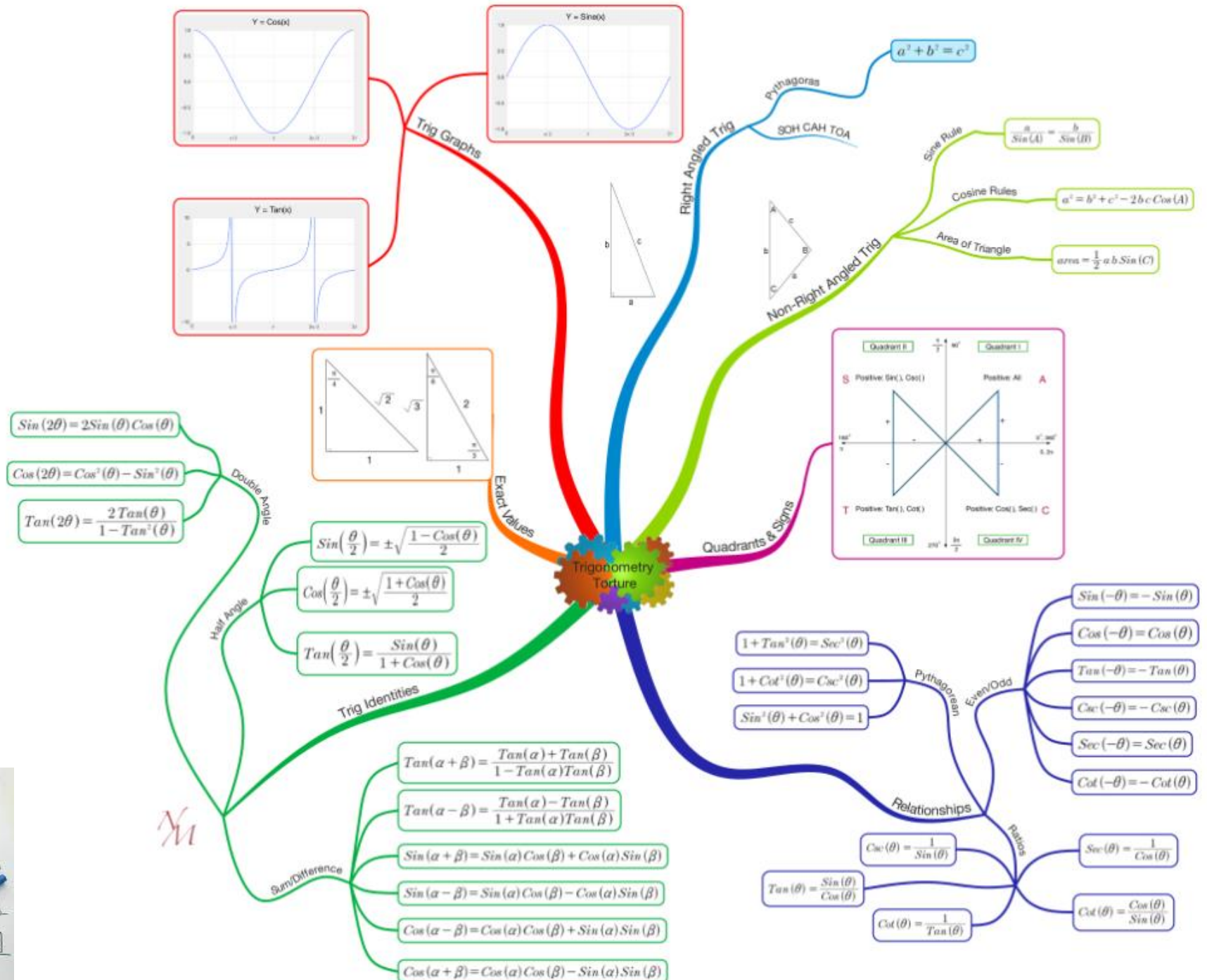
H = longest, O = opposite, A = next to, and remember SOH CAH TOA

You need to know this stuff off by heart — so go over this page a few times until you've got those formulas firmly lodged and all ready to reel off in the exam. All set? Good.

Mind Maps

Rules

1. Start with a central theme, e.g. Trigonometry. Ideally use an image.
2. Each theme, e.g. Trig Graphs, has a branch of a particular colour.
3. Print the words on the branch clearly. Ideally use the same colour as the branch.
4. Sub-branches should be the same colour, link to the main theme and add more information.
5. Images should be used where possible.
6. Words or phrases should be used as opposed to longer sentences.

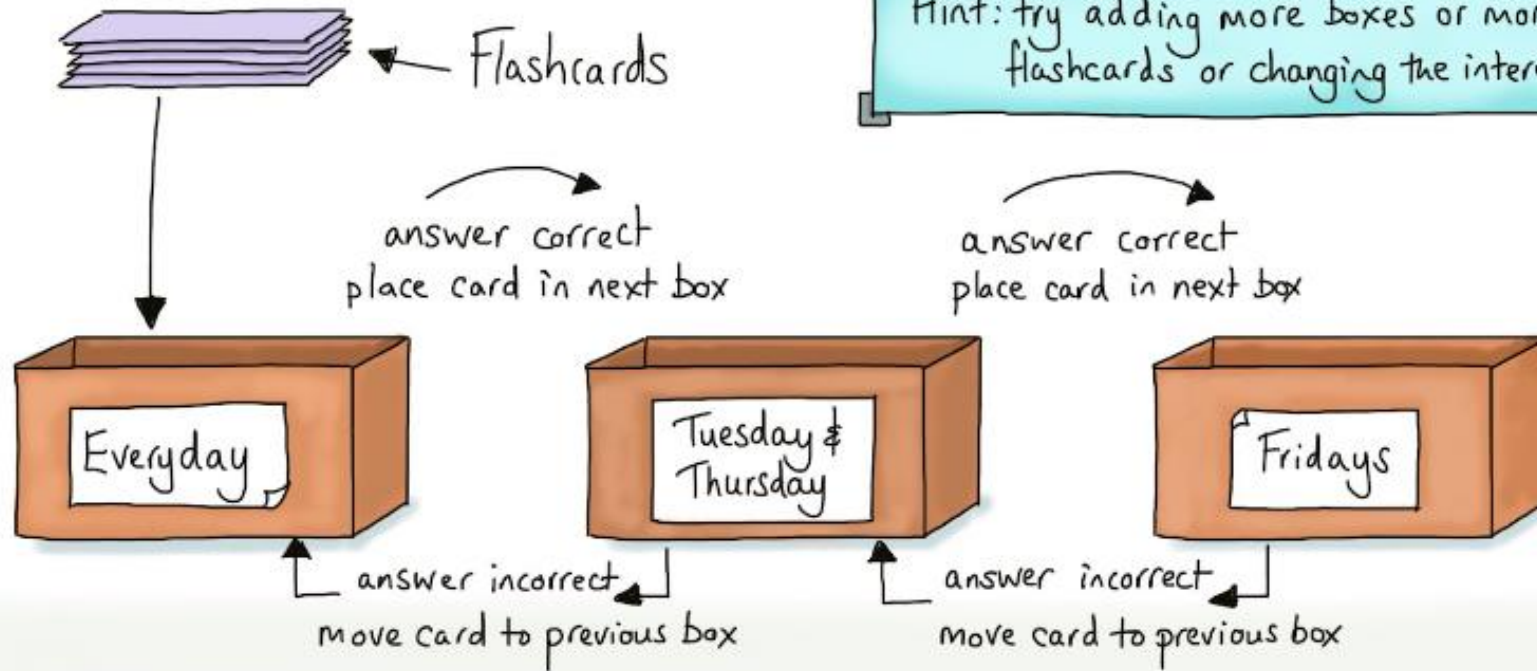


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LEITNER Flash card method

@ImpactWales

Hint: try adding more boxes or more flashcards or changing the intervals



Flash Cards

If $\cos(74^\circ) = \frac{45}{y}$, then y is...

$$\frac{45}{\cos(74^\circ)}$$

The Leitner System

General Certificate of Secondary Education

GCSE AQA Mathematics (Grade 9-1) Higher Tier

Centre name				
Centre number				
Candidate number				

Practice Set 1 Paper 1: Non-calculator

Time allowed: 1 hour 30 minutes

Surname
Other names
Candidate signature

In addition to this paper you should have:

- A pen, pencil and eraser.
- A ruler.
- A protractor.
- A pair of compasses.

Calculators may **not** be used.



Instructions to candidates

- Write your name and other details in the spaces provided above.
- Answer all questions in the spaces provided.
- In calculations show clearly how you worked out your answers.

Information for candidates

- There are 80 marks available for this paper.
- The marks available are given in brackets at the end of each question.
- You may get marks for method, even if your answer is incorrect.

Advice to candidates

- Work steadily through the paper.
- Don't spend too long on one question.
- If you have time at the end, go back and check your answers.

For examiner's use

Q	Mark	Q	Mark
1		13	
2		14	
3		15	
4		16	
5		17	
6		18	
7		19	
8		20	
9		21	
10		22	
11		23	
12		24	
Total			

