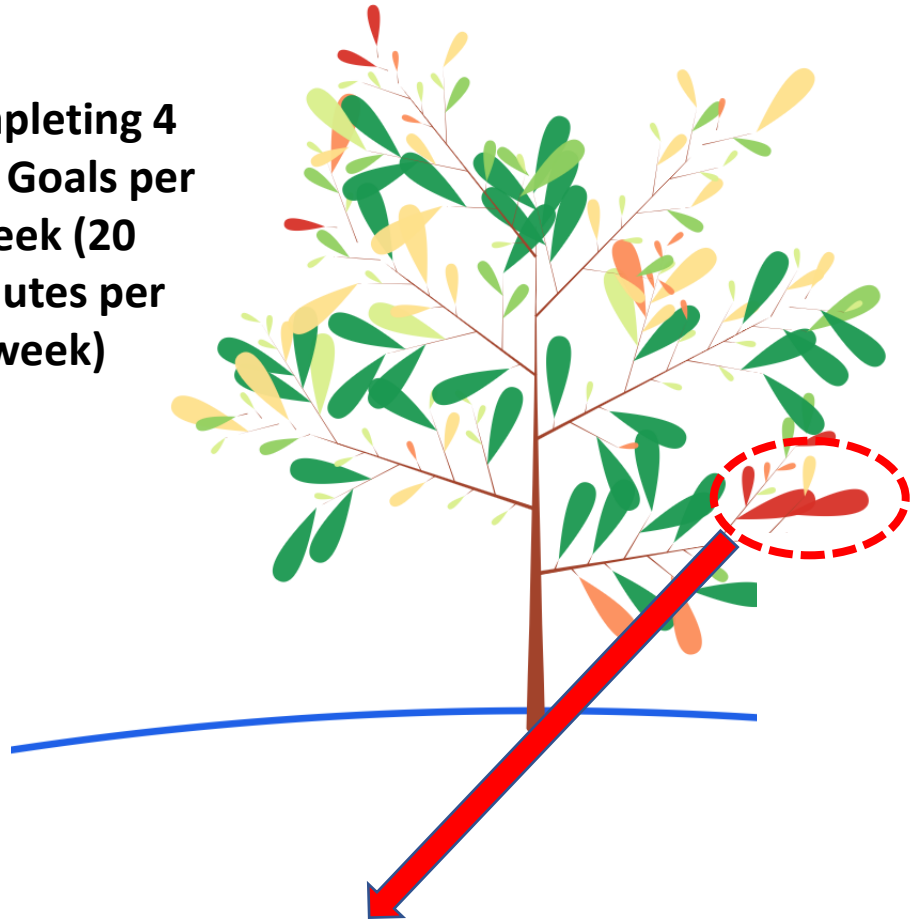

SAPIENTIA • SCIENTIA • AEQUITAS
THE
SUTHERS
SCHOOL
Tassomai

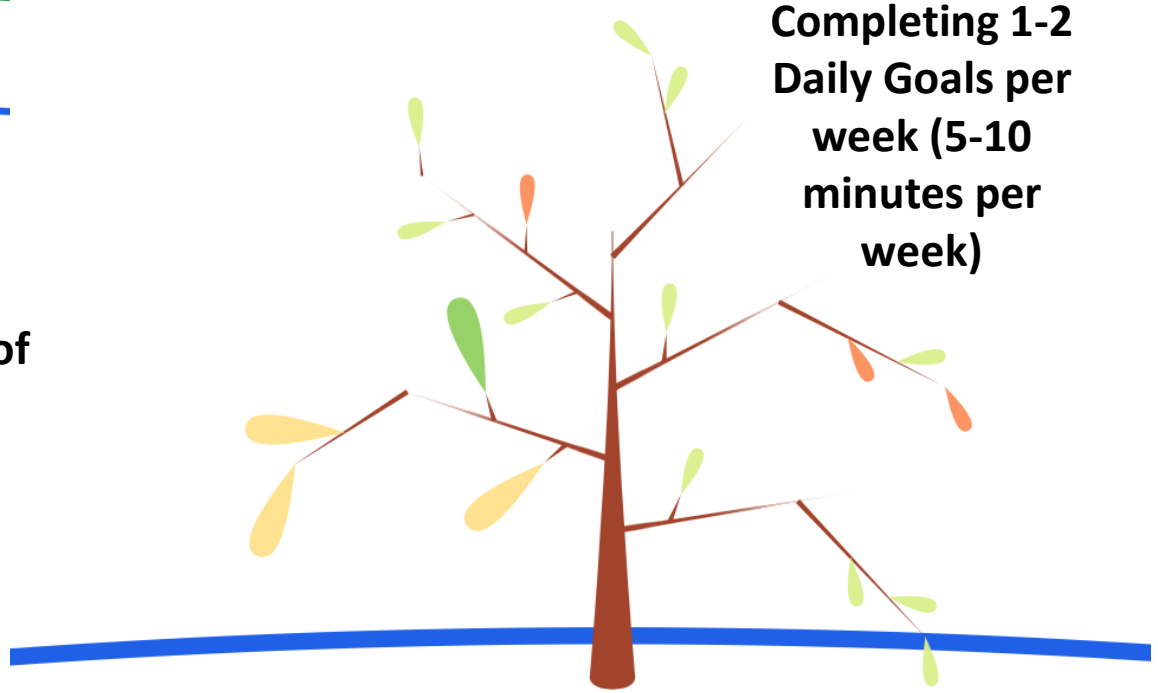
The Tassomai Tree

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)



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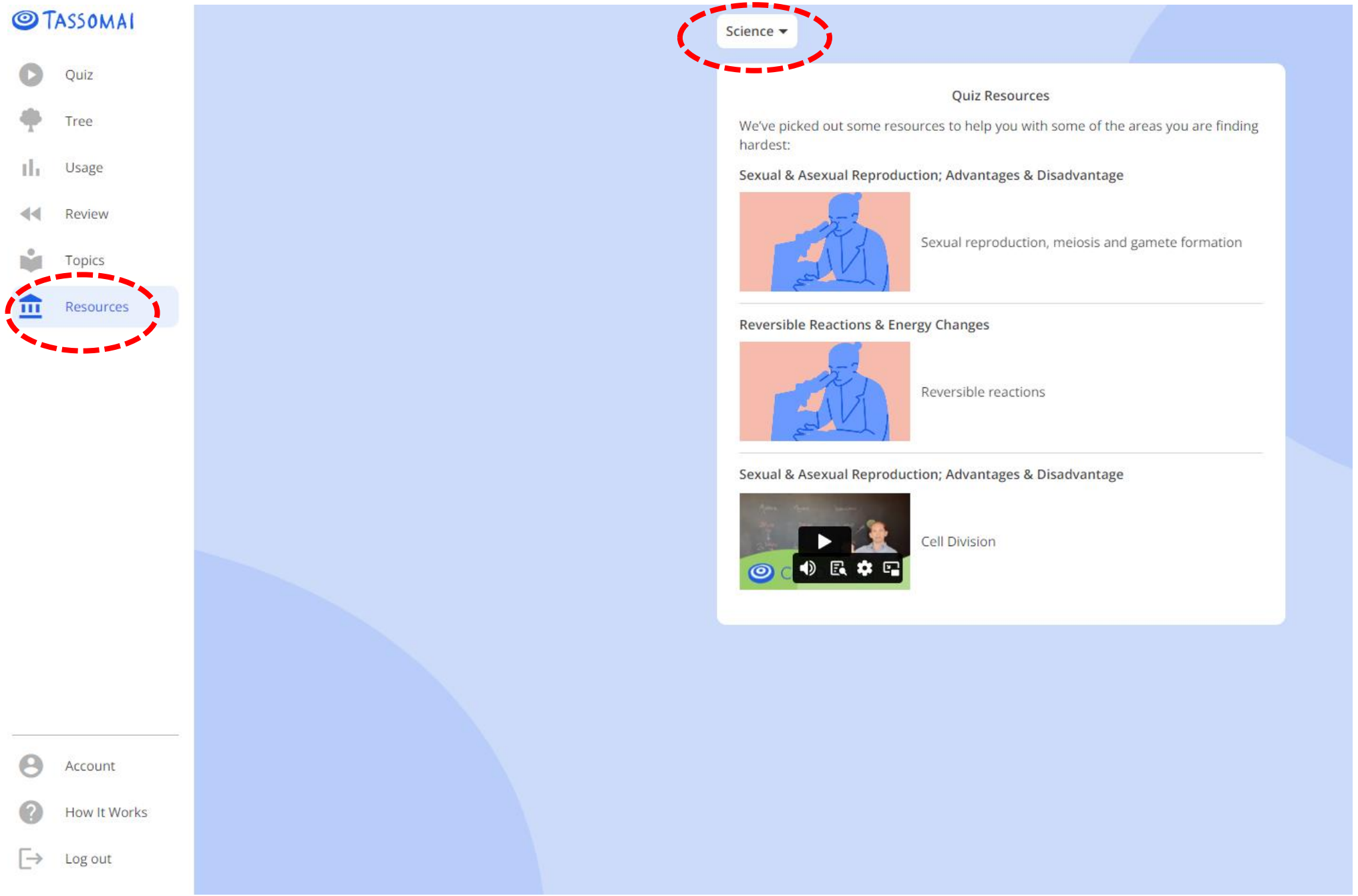
Tassomai Student Dashboard



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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

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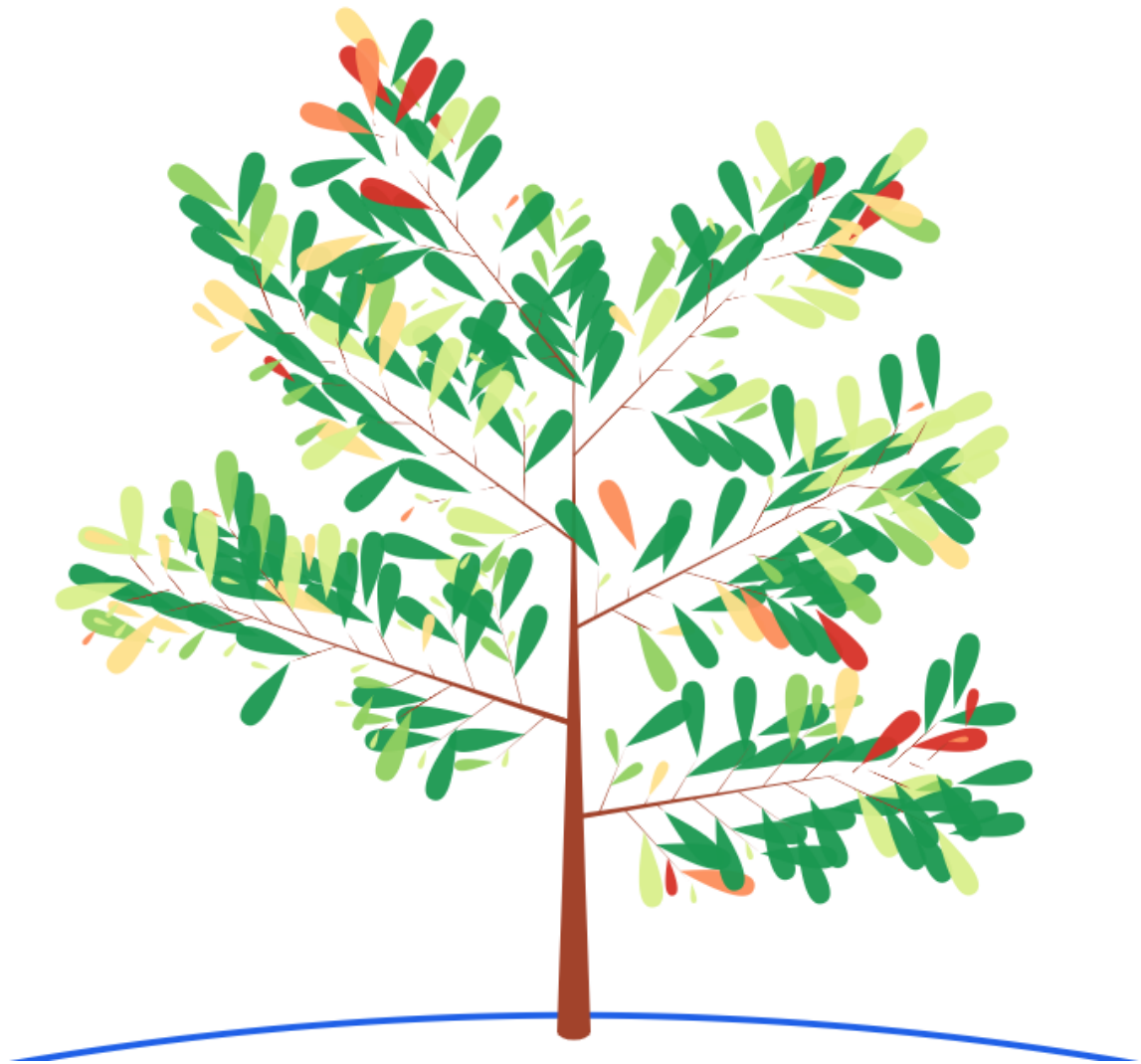
The Tassomai Tree [Maths]



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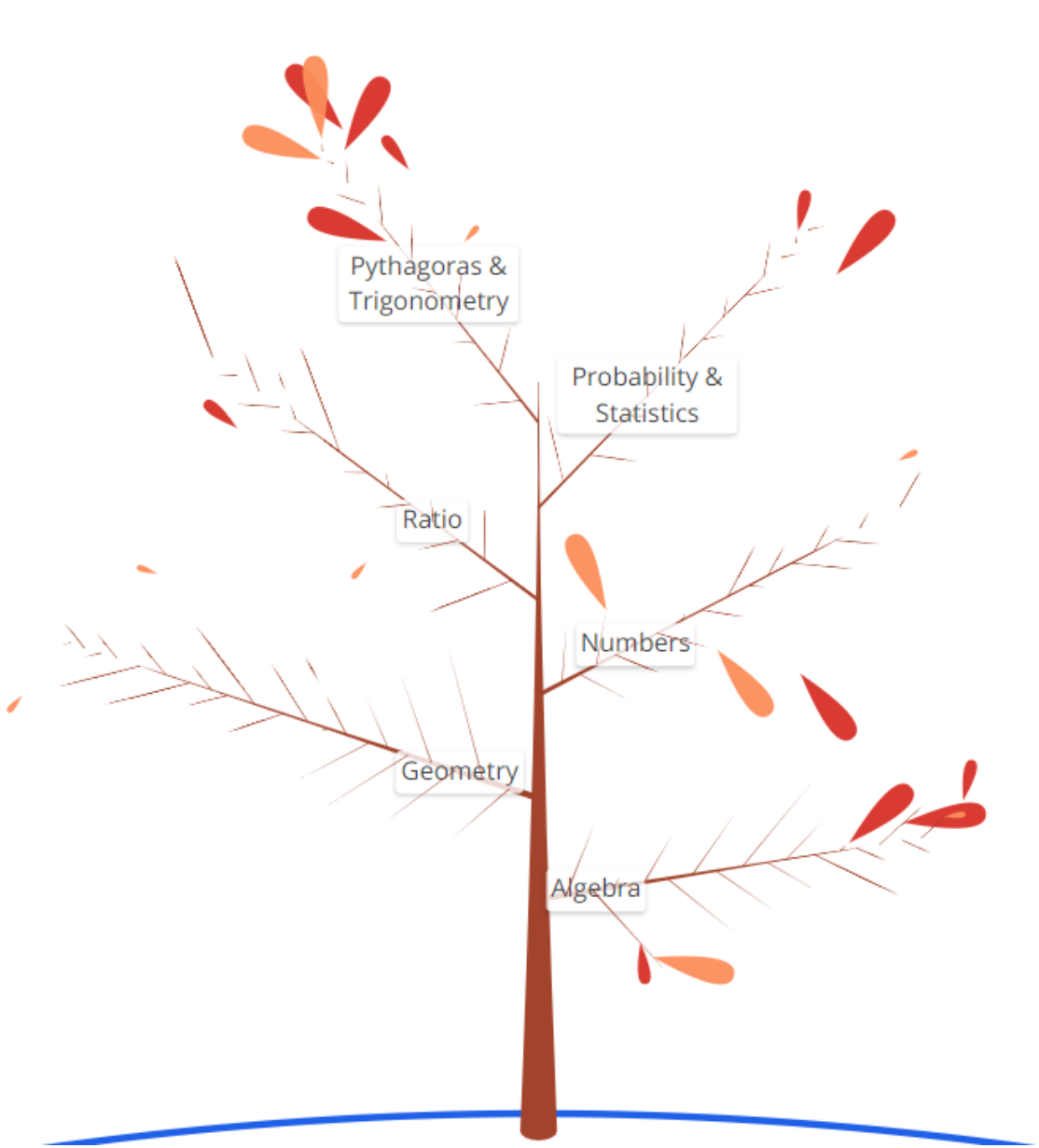
The Tassomai Tree [Maths]



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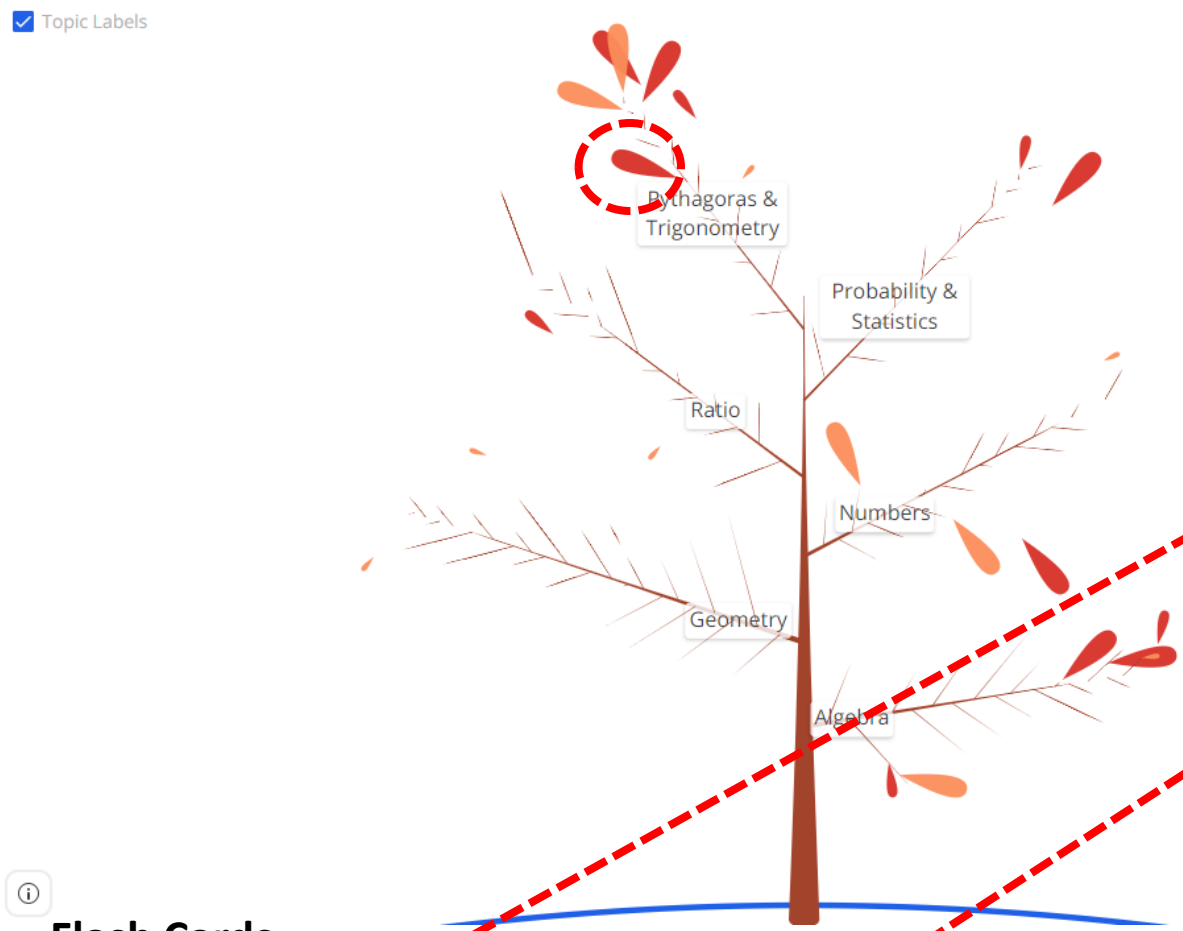
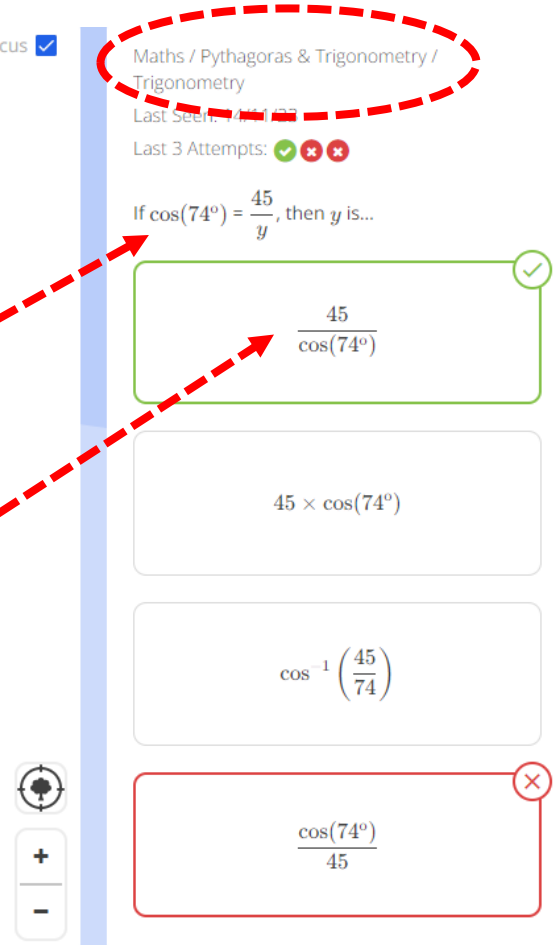
The Tassomai Tree & Flash Cards





Flash Cards

Front Write the question	**Back** Write the answer
If $\cos(74°) = \frac{45}{y}$, then y is...	$\frac{45}{\cos(74°)}$

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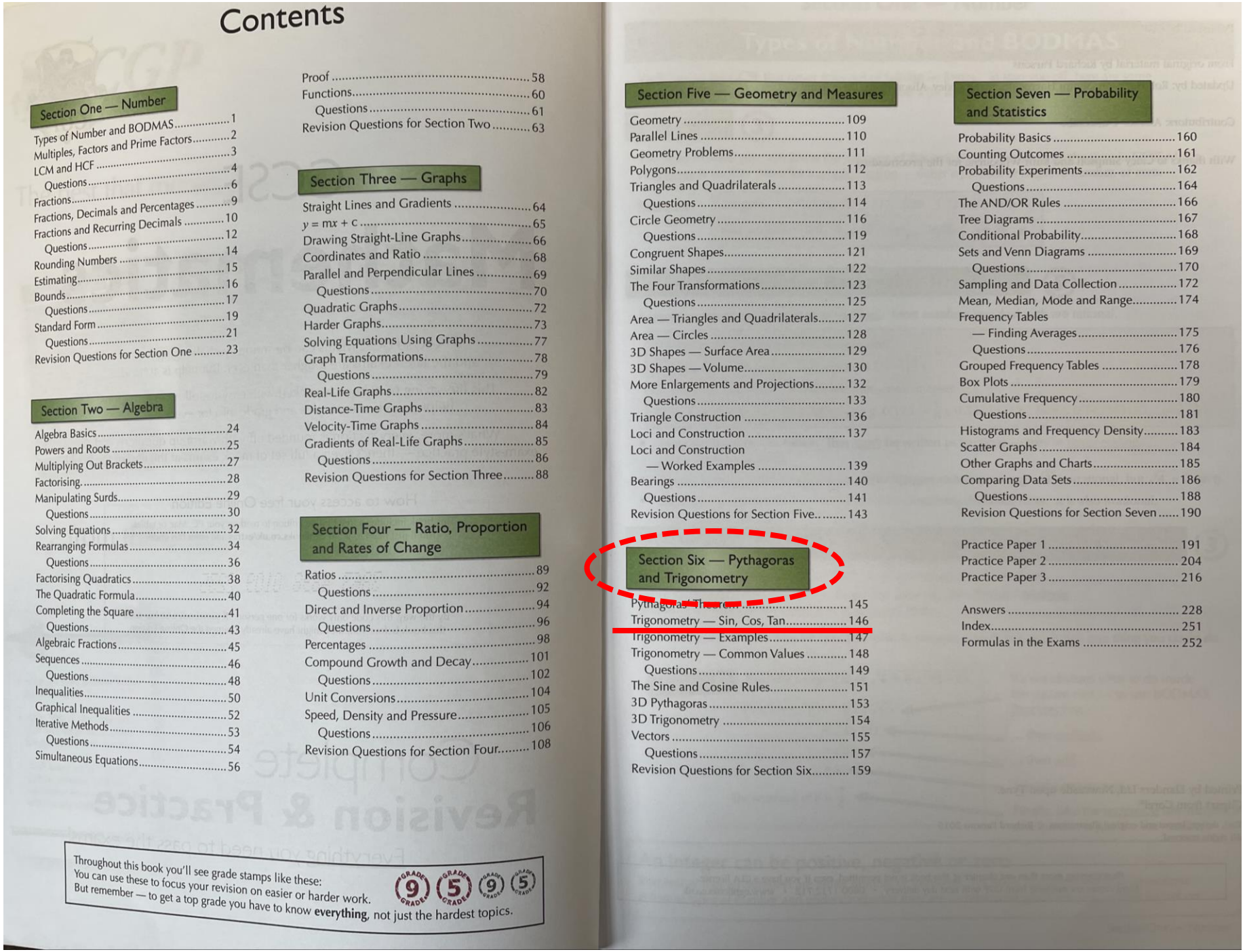
Revision Guide



Contents

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.

GRADE 9 GRADE 5 GRADE 9 GRADE 5

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Revision Guide & Flash Cards

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Flash Cards

Front Write the question	Back Write the answer
$\cos x =$	$\frac{\text{Adjacent}}{\text{Hypotenuse}}$

Trigonometry — Sin, Cos, Tan

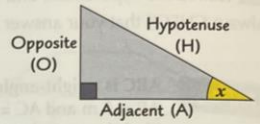
Trigonometry — it's a big scary word. It's important and always cropping up in exams, but if you just follow the method below it won't be a big scary topic.

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.



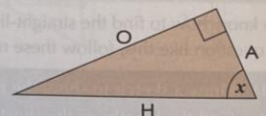
1) Whenever you come across a trig question, work out which two sides of the triangle are involved in that question — then pick the formula that involves those sides.
2) To find the angle — use the inverse, i.e. press SHIFT or 2ndF, followed by sin, cos or tan (and make sure your calculator is in DEG 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'.

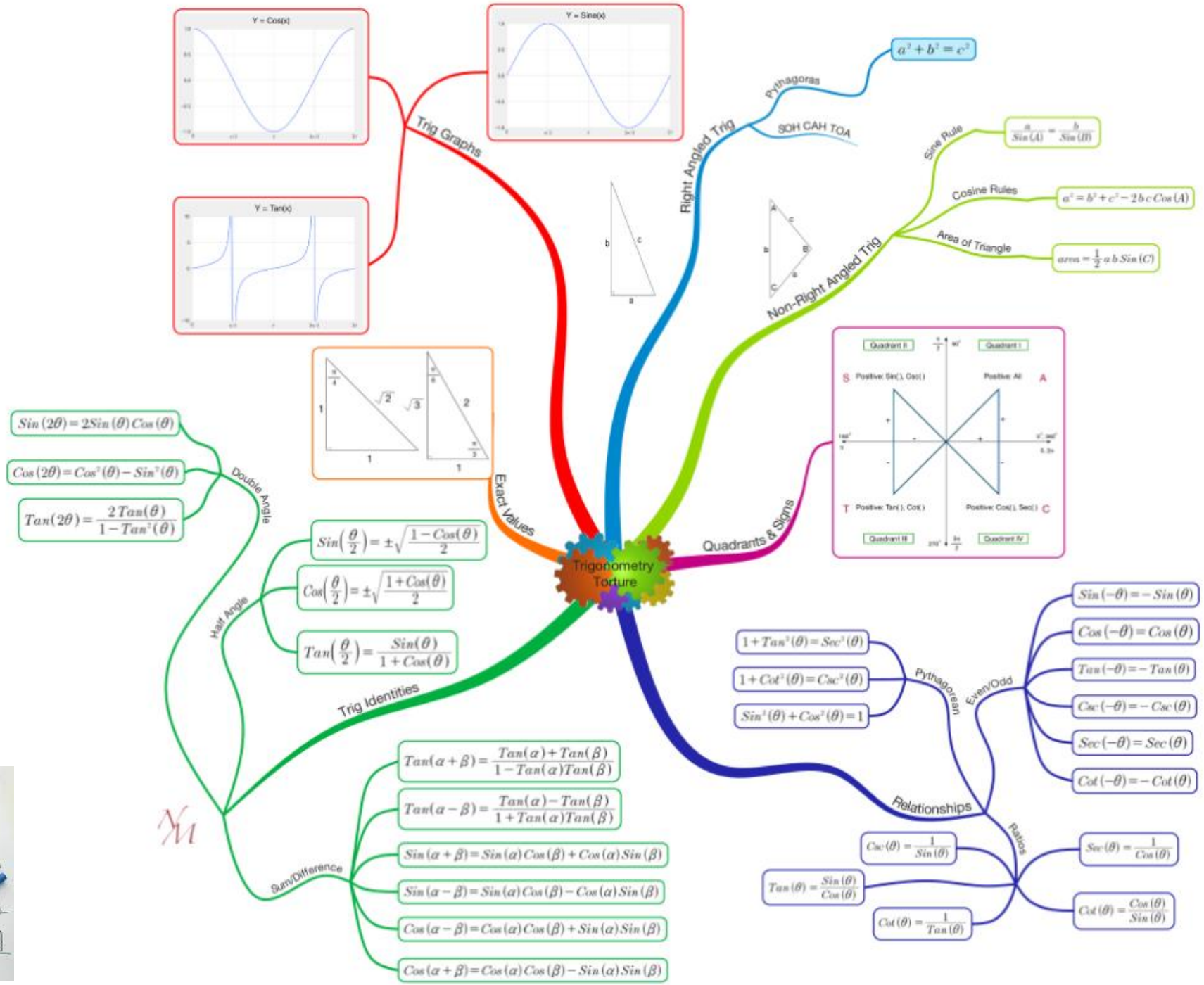
H = longest, O = opposite, A = next to, and remember SOH CAH TOA

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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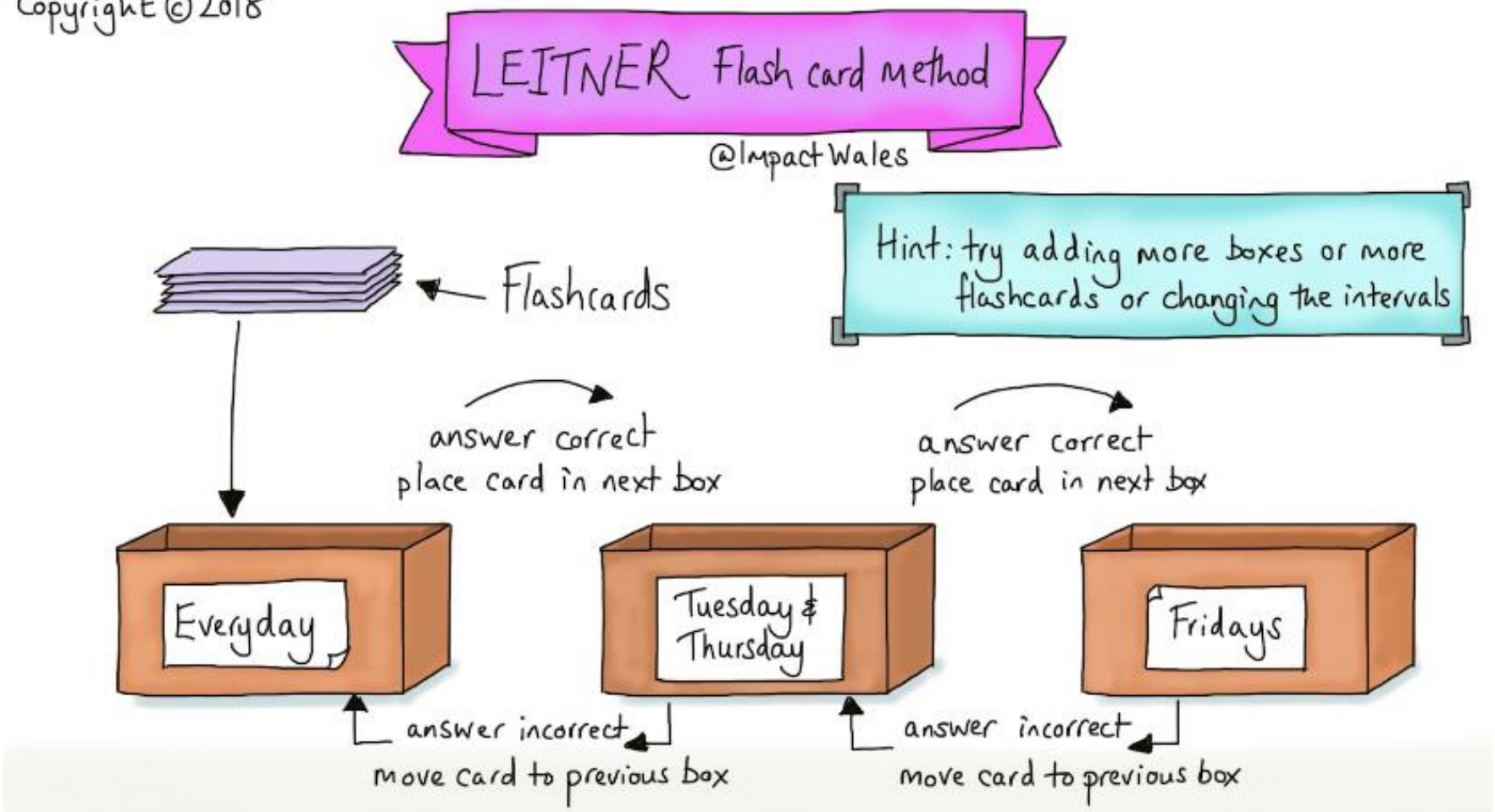
The Leitner System



Flash Cards

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

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

The Leitner Flashcard System

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