

Extension options

Beyond the extending prompts planned for every lesson within each Top Ten Mathematics Unit.

For students are who significantly beyond level, including their **mental** strategies (not vertical algorithm dependent), reasoning and ability to show proof through working out and detailed explanations that make sense to others.



<https://www.openmiddle.com/> (free)

Hundreds of challenging, easy-to-deliver 'blanks' problems with hints and answers included.

Free webinar:

<https://robertkaplinsky.com/worksheets-satelem>

DIVIDING FRACTIONS TO MAKE 2/3

Directions: Using the digits 1 to 9 at most one time each, place a digit in each box to make two different pairs of fractions that have a quotient of 2/3.

$$\frac{\square}{\square} \div \frac{\square}{\square} = \frac{2}{3}$$

Hint

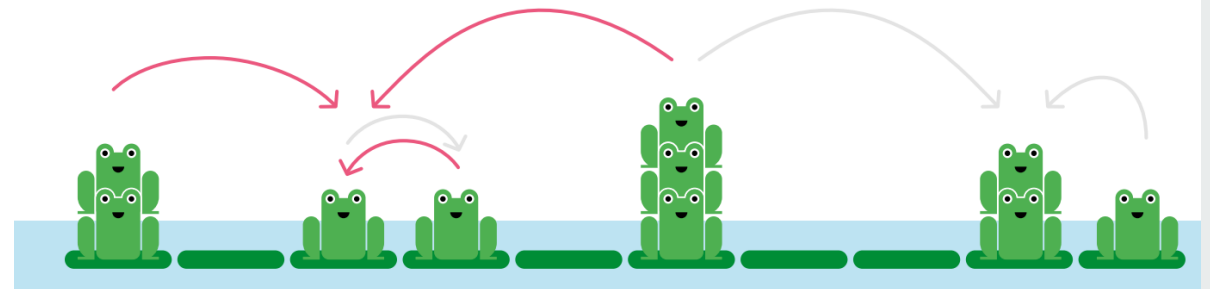
Answer

The Infinite Pickle (free)

<https://mathpickle.com/wp-content/uploads/2023/04/The-Infinite-Pickle-web-May-2023.pdf>

A collection of mathematical puzzles created by a Mathematics Professor who saw children fully engaged in problem-solving and aimed to ensure teachers could be supported with free puzzles to achieve this type of engagement more often.

Sahiba is a high school student in Michigan, USA. She has hosted national mathematics festivals with play-based puzzles. Her love for mathematics grew from math competitions, puzzles and overall having fun with problem solving.



nrich by the University of Cambridge (free)

<https://nrich.maths.org/topics-mathematics-secondary-students>

A series of mathematical problems and puzzles put together by the University of Cambridge.

We have found that the best way to navigate to a relevant problem is using the 'students' then 'maths by topic' navigation panels, clicking on 'secondary' mostly for options for extension students.



Number

Challenge level: ★☆☆

This collection of resources is designed to help you to improve your understanding of topics in Number.



Geometry and measures

Challenge level: ★☆☆

This collection of resources is designed to help you to improve your understanding of topics in Geometry and Measures.



Algebra

Challenge level: ★☆☆

This collection of resources is designed to help you to improve your understanding of topics in Algebra.



Handling data

Challenge level: ★☆☆

This collection of resources is designed to help you to improve your understanding of topics in Handling Data.

Ted Ed Riddles (free)

**CAN YOU SOLVE
THE BRIDGE RIDDLE?**



Can you solve the bridge riddle? - Alex Gendler

22M views • 9 years ago



TED-Ed ✓

Taking that internship in a remote mountain lab might not have been the best idea. Pulling that lever with the skull symbol just to ...

CC

3:50

A collection of challenging riddles for engaging problem-solving sessions:
https://www.youtube.com/playlist?list=PLJicmE8fK0EiFRt1Hm5a_7SJFaikIFW30

Extension competitions run by the AMT

<https://www.amt.edu.au/competitions>



AUSTRALIAN
MATHS TRUST

REGISTER FOR COMPETITIONS

<https://www.youtube.com/@misterwootube> (free)



YouTube Stories: Learning Mathematics with Wootube

651,171 views • 5 years ago

Main site: <http://www.misterwootube.com>

Second channel (for teachers):

<http://www.youtube.com/misterwootube2>

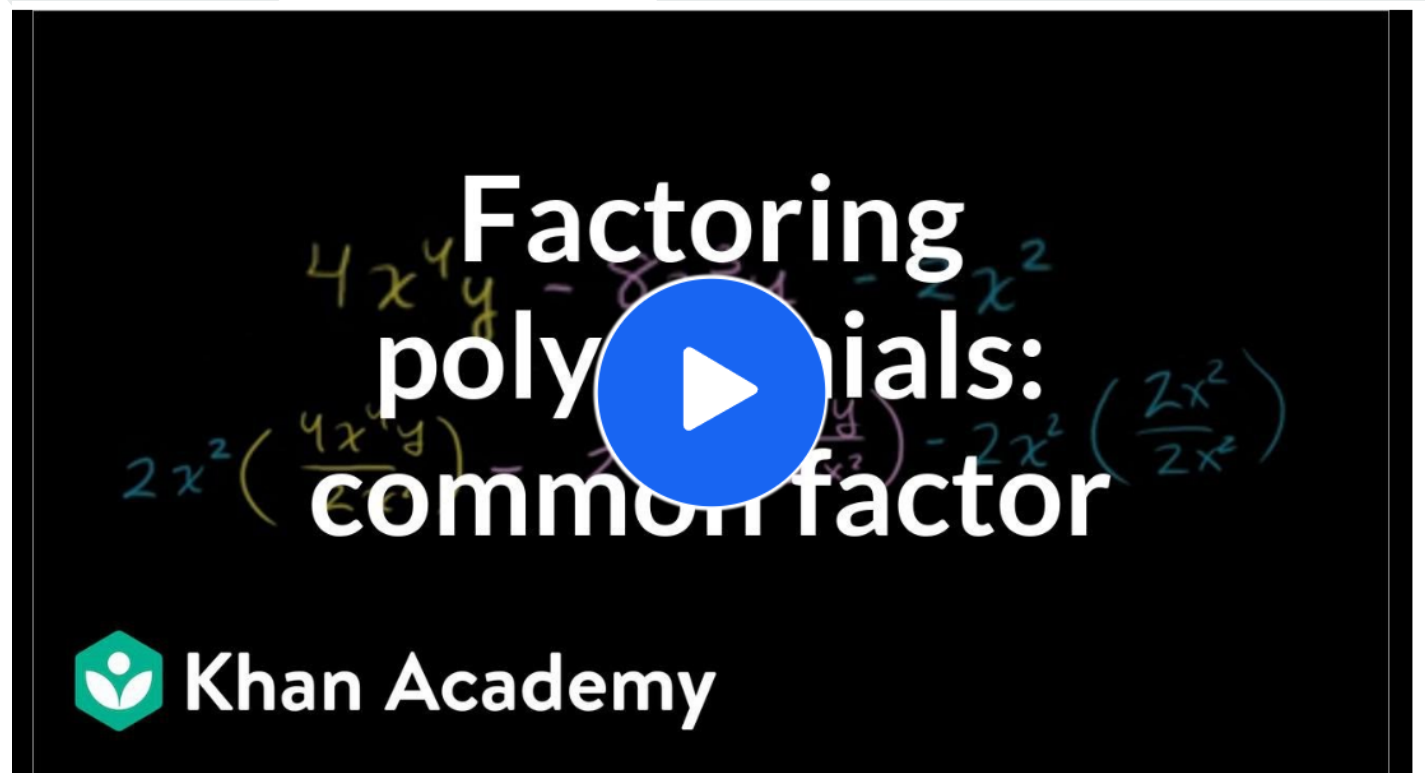
Connect with me on Twitter (<http://twitter.com/misterwootube>)
or Facebook (<http://fb.com/misterwootube>)

This video was commissioned and originally published by ...

[READ MORE](#)

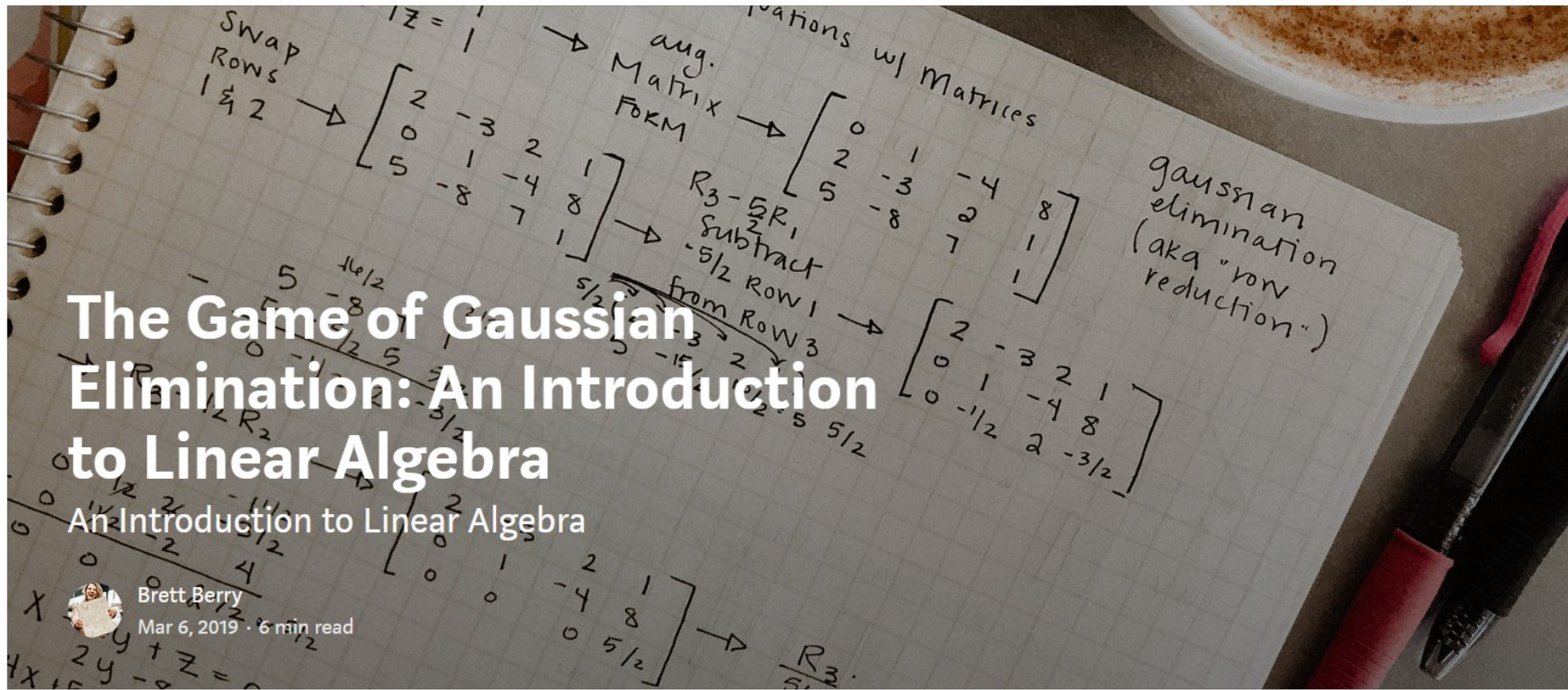
A collection of YouTube videos by a well-known and respected high school mathematics teacher in Australia.

<https://www.khanacademy.org/> (free)



A collection of videos on primary and secondary content.

<https://medium.com/i-math> (free)



The Game of Gaussian Elimination: An Introduction to Linear Algebra

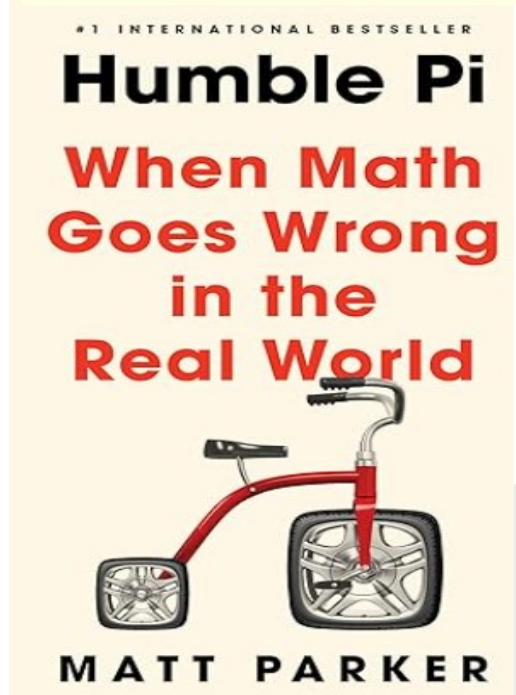
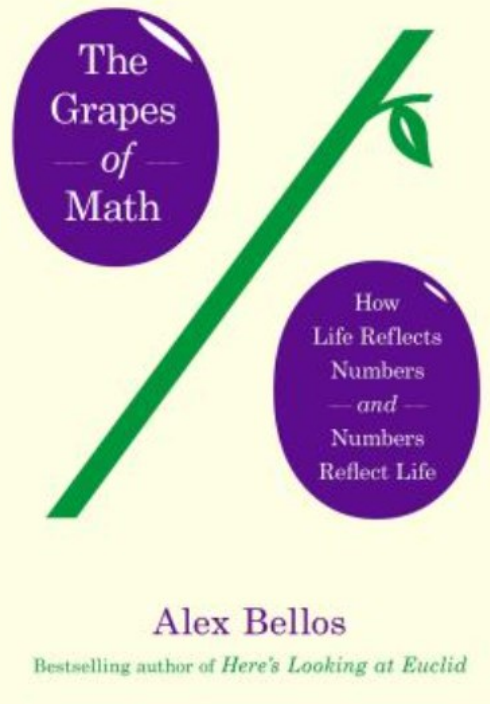
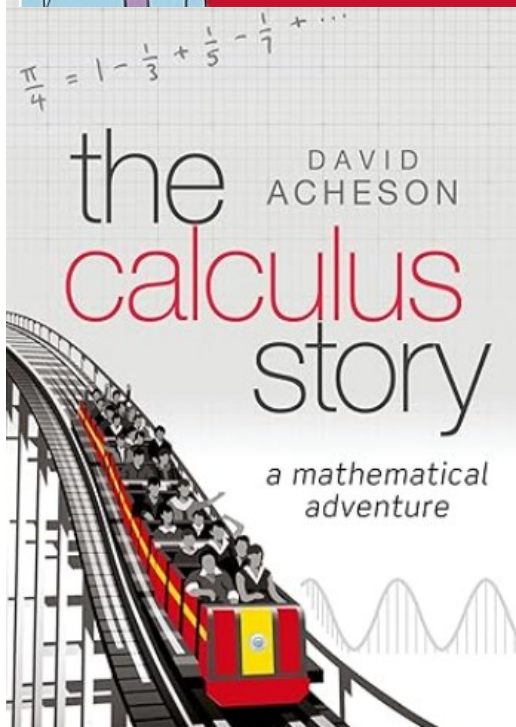
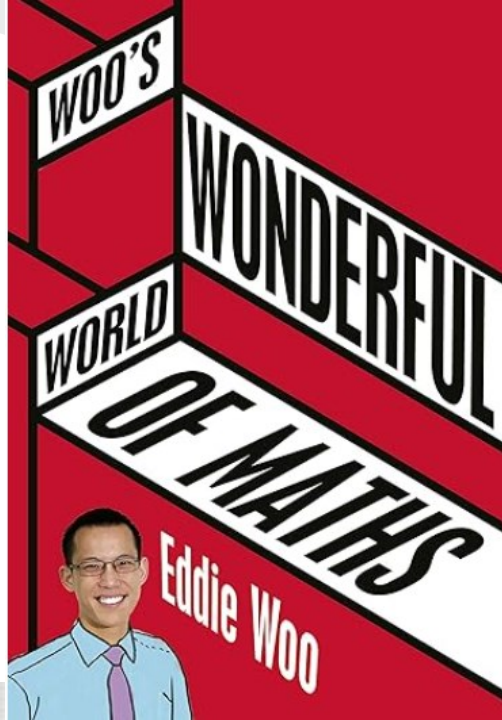
An Introduction to Linear Algebra



Brett Berry

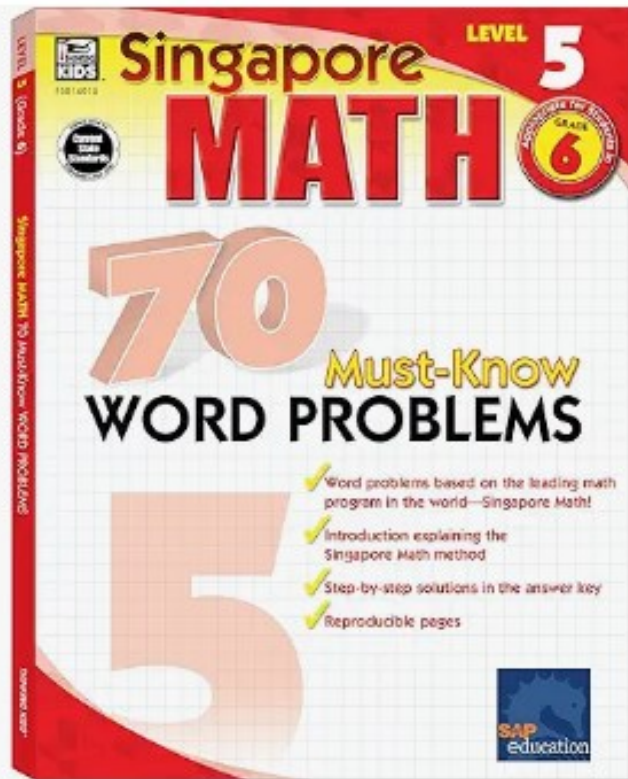
Mar 6, 2019 · 6 min read

A collection of well-explained higher order mathematics concepts.



Real-life Extension Maths

Books extension students could read throughout the year (during maths time) if no extending prompt is sufficiently advanced during a task, and if the student enjoys reading or, at least, reading about maths.



70 Must-Know Word Problems,
Grade 6 (Singapore Math)

1 June 2009

★★★★☆ 278

Paperback

Ages: 11+ years, from publishers

Singapore Maths Worded Problems

The Grade 6 level is quite advanced by Australian standards and suitable for extension students.

Available through Amazon Australia and selected publishers.