

# Fun & Games in VCE Maths

## D27 & J23



# Rosalind Willsher Sharon Darling



St Augustine's College, Kyabram



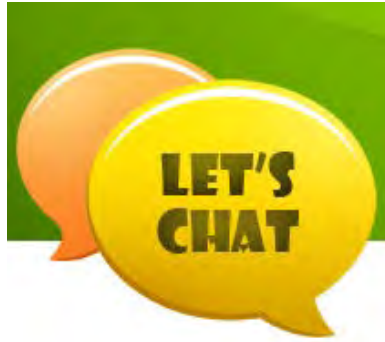
# Learning Intentions:

- To see how games can be used in VCE maths to:
  - Consolidate new ideas
  - Revise and Recall prior learning
  - Make learning fun and active
- To gain some concrete ideas that can be taken back to our classrooms
- To share ideas for games to use in our classrooms



## Learning Intentions:

- To tune in to maths vocabulary
- To review fundamental vocabulary: odd, even, prime, composite, factor, multiple



**How might you use this game  
with your class?  
How might you adapt it to suit  
your class?**

- As a warm-up/tuning in activity
- To get students up and active
- To break up a long double period
- To engage kinaesthetic learners
- To have fun!



## Learning Intentions:

- To recall prior knowledge
- To consolidate specific vocabulary
- To find connections between mathematical concepts



100 Mathematicians were surveyed: The top answers are on the board:

“What is another word, equation or expression for the slope of a line or curve?”



100 Mathematicians were surveyed: “What is a trig expression for which the answer is exactly  $\frac{1}{2}$ , given a domain of  $-2\pi \leq \theta \leq 2\pi$ ”







**How might you use this game  
with your class?  
How might you adapt it to suit  
your class?**

- As a warm-up/tuning in activity
- To get students up and active
- To break up a long double period
- To have fun!
- Terms for the gradient, features of a graph given the equation...



## Learning Intentions:

- To identify similarities and differences between items
- To identify key features of equations, graphs....
- To make connections between algebraic expressions and their graphical representations.



## Some topics where we use matching activities:

Linear graphs and equations

Simultaneous Equations

Inequations

Expanding and factorising

Quadratic graphs and equations

Discriminant sorting

Cubic graphs and equations

Surds, Rational & irrational numbers

Trigonometric Graphs and equations

Simplifying complex numbers

Sorting Different types of Data



**How might you use this game  
with your class?  
How might you adapt it to suit  
your class?**

- As a warm-up/tuning in activity
- As a pre-test, listen to student voice
- As a revision task
- As an assessment task  
(diagnostic/feedback)
- To have fun!



# This is old info, but an enquiry may be worthwhile



## Learn to Match/Match to Learn; VCE Mathematical Methods -

CD

Christine Boyer

ID: 0550

CD

Quantity:

[Add to Cart](#)

[Check out now](#)

Non-Members' Price: \$40.00

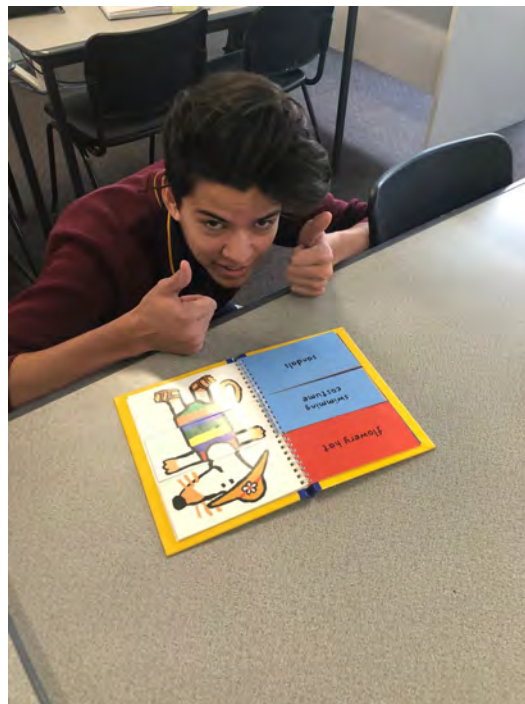
Members' Price: \$32.00

Categories: VCE

This innovative approach to teaching and learning will set your students to thinking and talking about the meanings on a VCE Mathematical Methods (Units 1-4) course. There are 103 pages, largely to be printed in multiple copies and cut into cards to be matched within a group activity. Christine Boyer is an experienced VCE teacher who has developed ways of helping her students to understand and enjoy the difficult concepts of VCE Mathematical Methods.

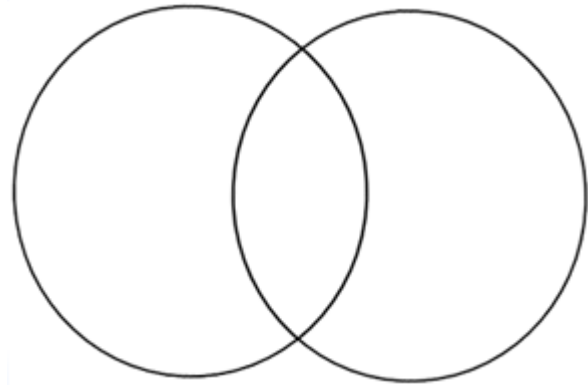


# Using Toys to Learn





On an A3 piece of paper, draw two large overlapping circles.



Sort your toys.



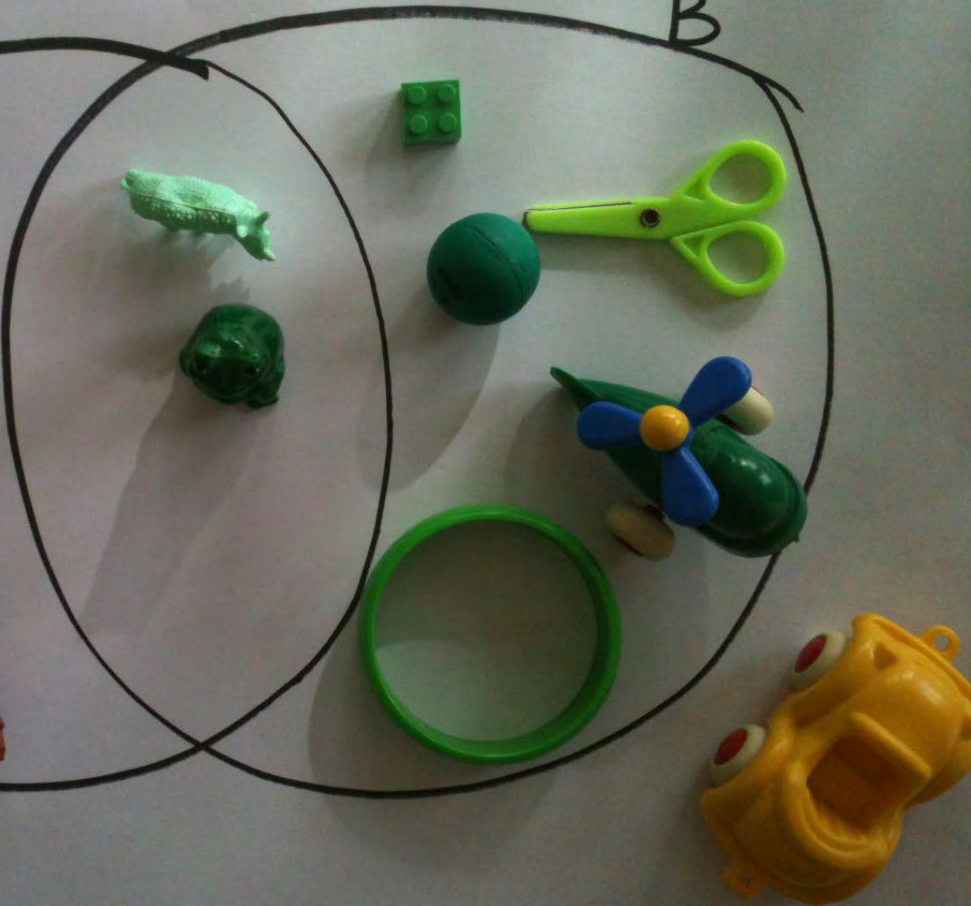


3

A



B



3



B

A





**How might you use this game  
with your class?  
How might you adapt it to suit  
your class?**

- As a warm-up/tuning in activity
- As a pre-test
- To have fun!



## Learning Intentions:

- To observe some other games we use in maths
- To be inspired by the use of interactive games
- To create your own game from some ideas presented today.

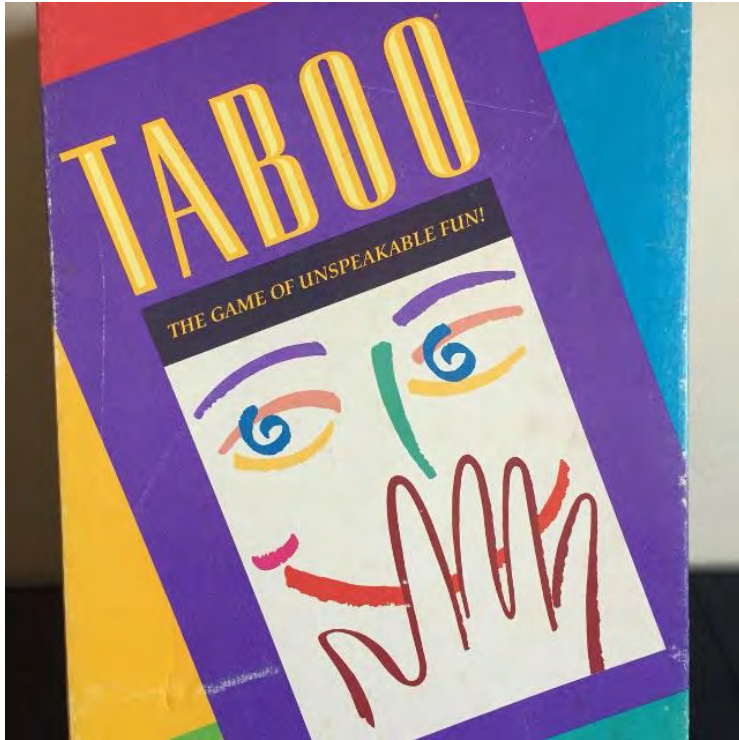
# Exponents Cluedo



This activity will get your students out of their seats and working cooperatively in small groups. They will use their knowledge of exponents in order to solve problems. Every correct answer helps eliminate suspects, locations, or “weapons”—just like the popular board game.



## Taboo - for any subject



A good game for consolidating vocabulary.

Students can help in the making of this game, by submitting lists of words and suggested terms that are taboo.

Eg **Domain**

**Values**  
**Substitute**  
**X**  
**allowed**



# whiteboards

## Learning Intentions:

- To observe how white boards (large and small) can be used, by students, as learning tools.



**How might you use this game  
with your class?  
How might you adapt it to suit  
your class?**

- To make student thinking visible
- To encourage hesitant students to put their ideas in writing (without the fear of mistakes being permanent)
- To use whiteboards as a diagnostic or formative assessment tool



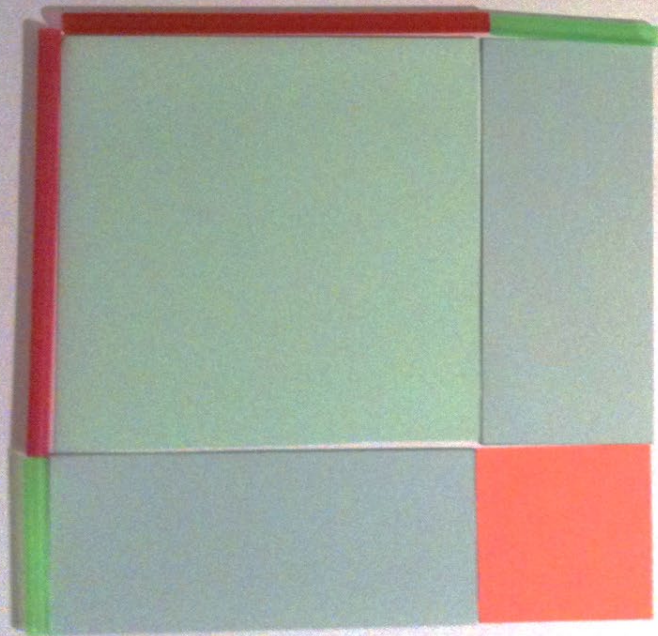


# Fun with Algebra?

Just a few creative ideas!

$$(a+b)^2$$

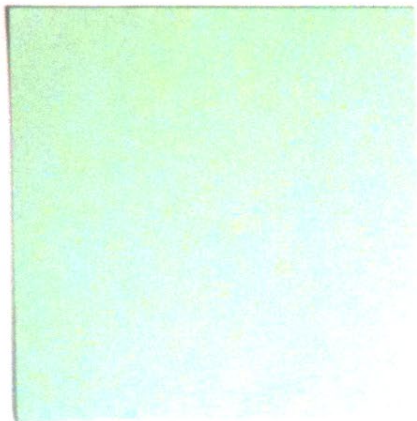
visually



$$b^2$$

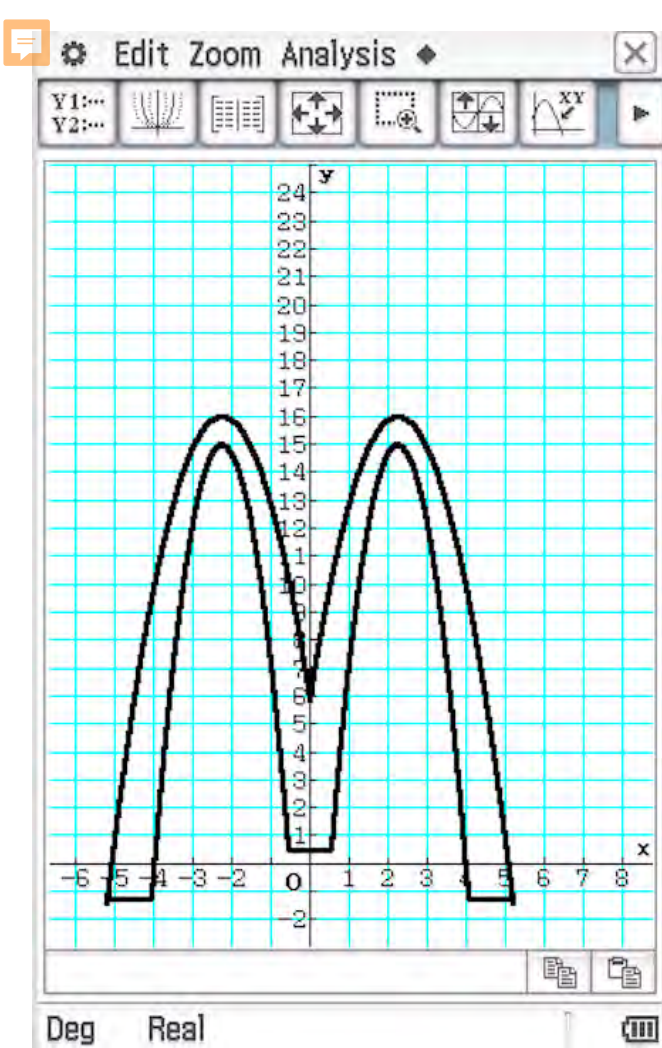


$$a \times b$$



$$a^2$$





Fun with CAS

