



workshop

Singapore Mathematics

The best in the world?

Or not?



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What can we learn from
Singapore?





Eugene Low

- International Educator 26 years - School consultant, Accreditation Team Leader/Member, Teacher Trainer, Curriculum Development, Staff Development and Appraisal
- Familiar with various curriculum frameworks - IB, IEYC/IPC/IMYC, Cambridge International, Common Core
- Singaporean - Multilingual Speaker - English, Chinese, Cantonese
- International Mediator
- Public Speaker, Event Host, and Award-winning Toastmaster
- Community Leader
- Father of two young boys





Introduction

Jolinda Groothedde



- 20 jaar in education, 11 years in Singapore
- Curriculum Leader in Singapore at the Holland International School
- Teacher Trainer International Curriculum Association
- IEYC/ IPC ambassador Singapore
- High Quality education working the team towards accreditation
- Passionate about Sustainability/ SDG's
- Mother of 2 young daughters



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SG and NL

Similarities and differences

02



Mathematics in SG and NL



Singapore

PSLE



Netherlands

Cito toets





Mathematics in SG and NL

Approach

- Dutch: Emphasis on *real-life contexts* and understanding (Realistic Mathematics Education – RME).
- Singapore: Structured **Concrete** → **Pictorial** → **Abstract (CPA)** progression.



Problem Solving

- Dutch: Context-rich, often multiple strategies encouraged.
- Singapore: Systematic strategies (e.g., bar modeling) for solving complex problems.



Pacing

- Dutch: Slightly more gradual, with strong differentiation.
- Singapore: More *accelerated* and mastery-driven.

Focus

- Dutch: Understanding + application in real-life situations.
- Singapore: Deep conceptual mastery + efficiency.





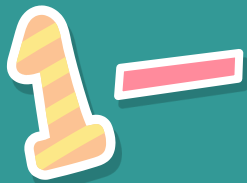
Mathematics in SG and NL



Similarities and differences:

- Pedagogical model / possible didactic models
- Common misconceptions





Terminology



Strategies

English algebra

Prepare Dutch students for secondary school



The image shows the equation 8+3 in a playful, stylized font. The number 8 is red and white striped, the plus sign is yellow, and the number 3 is green and yellow striped. They are all set against a teal background with a faint grid pattern.
$$8 + 3$$

Examples of international approaches

Cambridge mathematics/ UK mathematics

Australian/ New Zealand mathematics

US common core mathematics

IB mathematics

White rose mathematics

School-based curriculum based on different national curriculum



Mathematics Tuition Centres

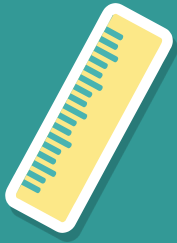


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Many prominent mathematics tuition centres in Singapore operate out of shopping malls or retail complexes. These are often located on upper levels (like the 2nd, 3rd, or 4th floors) for quieter study environments, or on the 1st floor for high visibility.

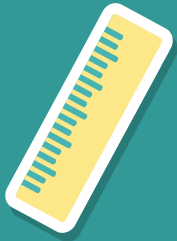
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Tuition Centres





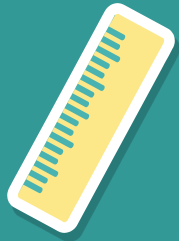
Tuition Centres



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01

PSLE exams

Examples

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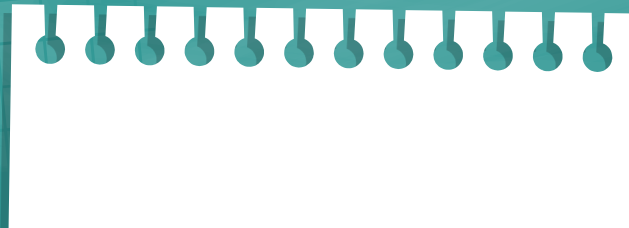
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PSLE Exam

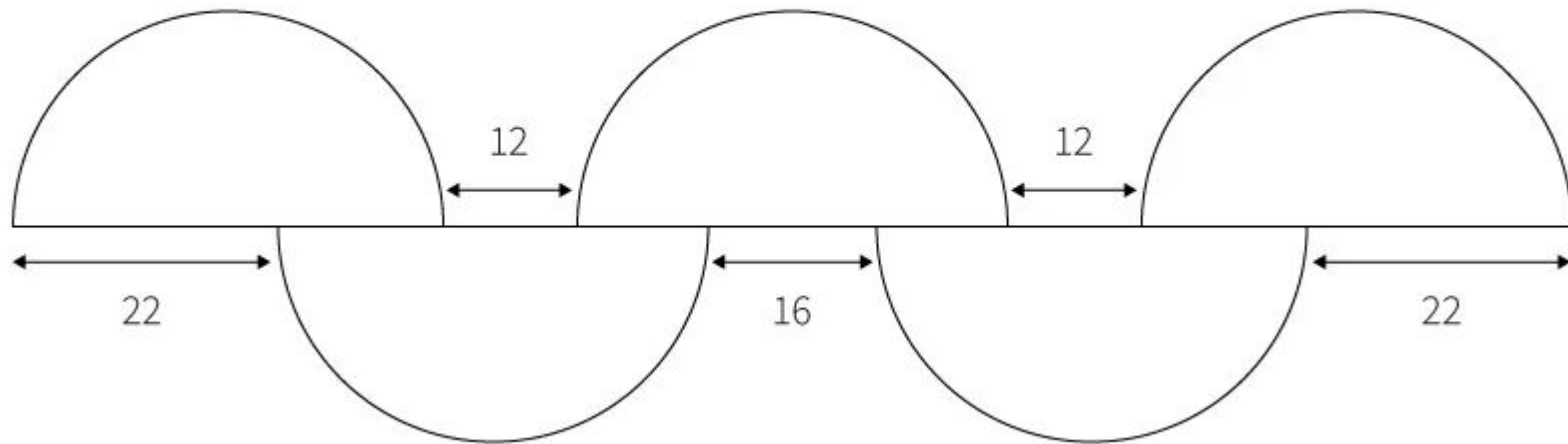


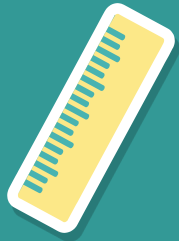
- Compulsory to attempt at 12 years old
- Paper 1 (Non-Calculator) 45 marks: 1 hour
 - Booklet A MCQ (20 marks) - 10 x 1 mark + 5 x 2 marks
 - Booklet B Short Answers (25 marks) - 5 x 1 mark + 10 x 2 marks
- Paper 2 (Calculator) 55 marks: 1 hour 30 min
 - 5 x 2 marks
 - Other questions of 3, 4 or 5 marks
- The exam is typically separated by a break of about an hour between the two papers.



Real Examples

Five identical semicircles are arranged as shown.
Find the diameter of one circle.





04

Pisa Results

What can the Netherlands learn
from Singapore?

9



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Pisa results

2

What can we learn from Singapore or not?



Trained

Short term memory



Tuition centres

Business model



Not only in school

Results are high
because of drilling

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$$4 \times 3$$

Questions?

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$$3 \times 9$$



**Thank you and have a
good day!**

