



Preparing Your Child For PSLE MATHEMATICS 2018

Date of PSLE Maths: 28 September

Outline

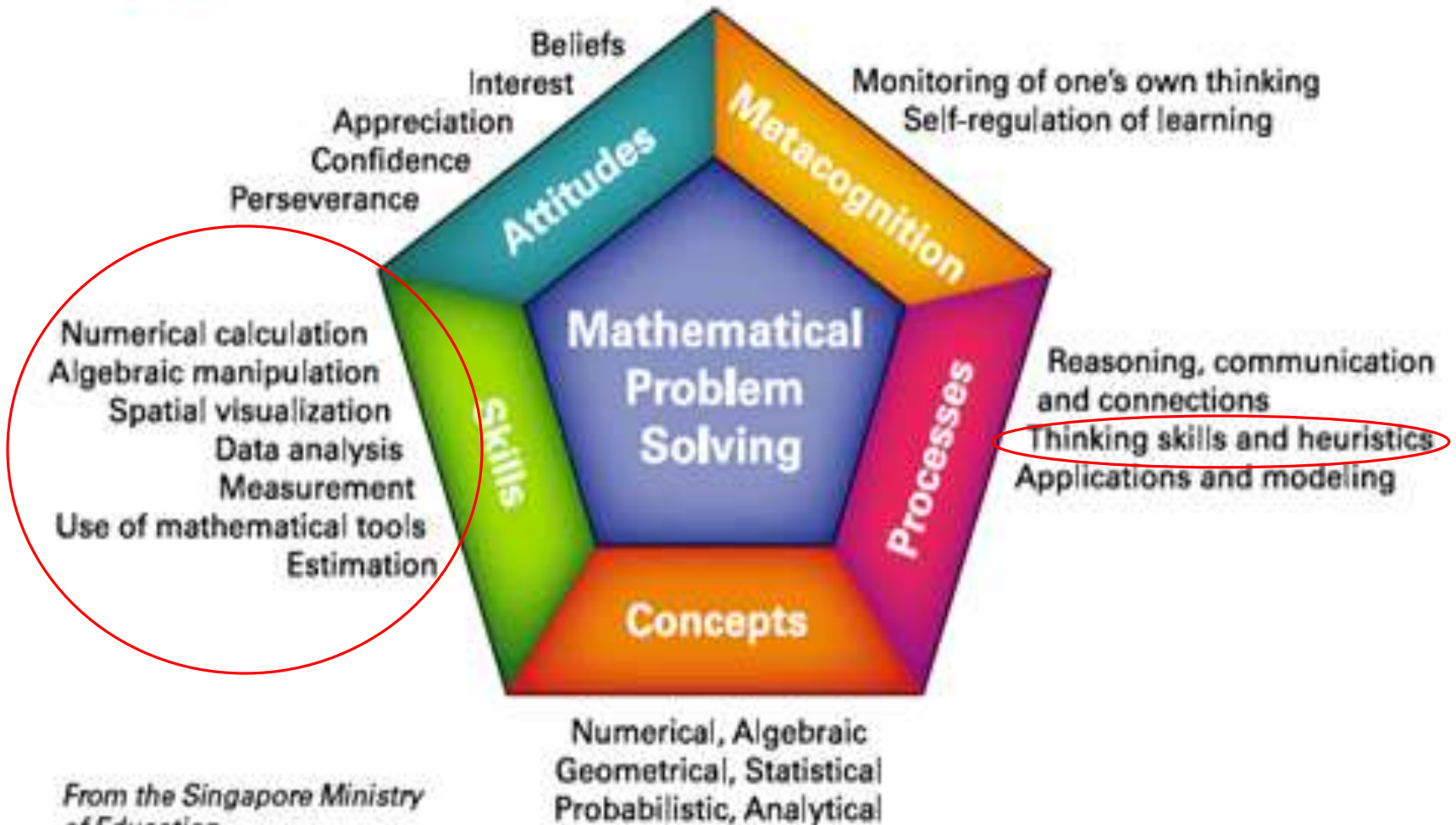
- Objective of PSLE Maths
- Topics to be tested
- Examination Format
- Problem-Solving Strategies
- Some common mistakes to note
- Assessment Objectives
- What is new in 2018?
- Expectations

PSLE Maths

The purpose of the PSLE Mathematics examination is to assess pupils' attainment in mathematics at the end of Primary Education with respect to the objectives of the Mathematics Curriculum

Mathematics Framework

Singapore's Mathematics Framework



From the Singapore Ministry of Education

Mathematics Framework

- ❖ The framework sets the direction for teaching, learning and assessment.
- ❖ In the curriculum, problems are defined to include “a wide range of situations” and include “non-routine, open-ended and real-world problems”.

Topics to be tested

Standard Mathematics:

- Numbers (Whole Numbers, Fractions, Decimals)
- Measurement
- Statistics
- Geometry
- Rate, Ratio, Percentage
- Speed
- Algebra

*Minimal content changes.
Mainly movements.
Topic on Tessellation is removed.*

PSLE Mathematics Format

| | | |
|-------------------------------|---------------------------------|--|
| Paper 1 (45 marks) | Booklet A (20 marks) | Duration: 1 hour |
| | Booklet B (25 marks) | <i>Use of calculator not allowed</i> |
| Paper 2 (55 marks) | | Duration: 1 hour 30 minutes <i>Use of calculator allowed</i> |

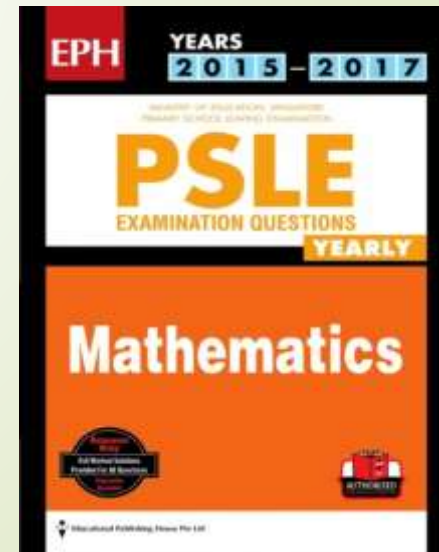
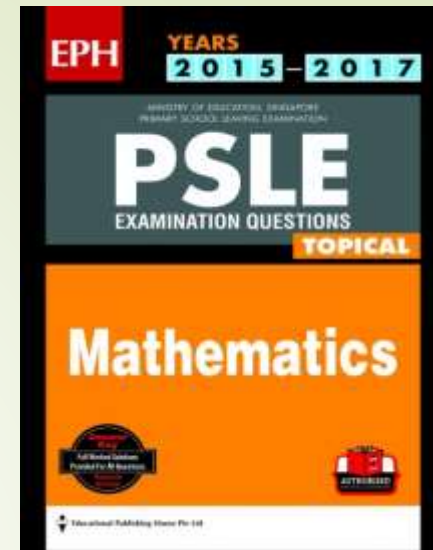
PSLE Mathematics format

| Paper | Booklet | Item Type | No. of questions | Marks | Weighting | Duration |
|-------|---------|---------------|------------------|---------|-------------|---------------------|
| 1 | A | MCQ | 10 | 1 | 10% | 1hour |
| | | | 5 | 2 | 10% | No Calculators |
| | B | Short answer | 5 | 1 | 5% | |
| | | | 10 | 2 | 20% | |
| 2 | | Short answer | 5 | 2 | 10% | 1h 30m |
| | | Structured | 12 | 3, 4, 5 | 45% | Calculators allowed |
| | | TOTAL: | 47 | | 100% | 2h 30m |

PSLE Mathematics format

Paper 1

- Consists of Booklet A & B
- Each question to be answered in less than 2 min
- Speed is essential
- Not much time for checking of answers



Paper 2- Breakdown of time required

| Paper | Item Type | No. of questions | Time required | Total time |
|----------|---|------------------|---------------|------------------------|
| 2 | SAQ | 5 | 5 x 2min | 10 min |
| | Structured/ Long Answer (3m, 4m & 5m) | 12 | 12 x 5min | 60 min |
| | Checking | | | 20 min |
| | TOTAL TIME FOR PAPER 2 | | | 1 hr 30 min |

Paper 2

- Questions are more difficult
- Focus on understanding of question and strategy employed
- Do not spend time doing manual calculation
- Marks are given for working, method, mathematical sentence is important
- Cultivate the habit of writing working steps in daily work

Pointers for Pupils

- It is important to **do well in Paper 1**
- Spending at least 30 min/1h every day to **revise their daily work** or concepts to review what they have learned in class
- **Practise the easier questions first.** Easy questions helps to build up your child's foundation and most importantly, strengthens his/her self belief that Math is not as difficult as it seems
- Calculator is merely a tool. Questions in Paper 2 would be based on **concepts** and **understanding**

Some Pointers for Parents

- Encourage your child to organise (Process) information in the question into model, table or diagram
- Provide opportunities for time-based practices, revision of P4 to P5 topics
- Choose practices according to child's ability



The 5 key competencies in solving challenging problems

- Visualisation –An intellectual competency which is one of the most important abilities in solving problem and mental strategies strengthen visualization ability
- Number Sense
- Metacognition
- Communication
- Patterns

Problem-solving Strategies

- ➔ Draw a model
- ➔ Draw a diagram
- ➔ Make a list
- ➔ Guess and Check
- ➔ Make a Table
- ➔ Look for a pattern
- ➔ Working Backwards
- ➔ Logical Reasoning

Some Common mistakes and points to note

- Mistakes caused by mental calculation e.g. $2 \times 3 = 5$
- Use of wrong formula e.g. Area of triangle
= Length x Breadth
- Stuck at one question for too long
- Shaded wrong answer
- For Percentage and Rate sums, \rightarrow has to be used
- Jane spent \$109 on a watch after a discount of 25%,
What was the price of the watch before the discount?

$$100\% - 25\% = 75\%$$

$$75\% = \$109 \quad \times$$

$$75\% \rightarrow \$109$$

$$1 \text{ man} \rightarrow 200 \text{ hours}$$

$$5 \text{ men} \rightarrow 40 \text{ hours}$$

Some Common mistakes and points to note

- Combined Maths statement

E.g. $58 + 37 = 95 + 73 = 168$

Incorrect as $58 + 37 = 168$ **x**

- The word 'unit' must be spelt fully instead of using the letter 'u' as representation

$10 \text{ units} = 20$

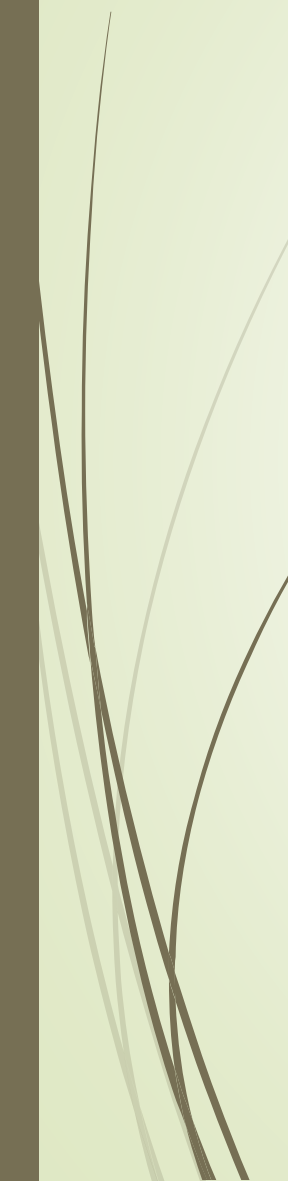


Changes in Assessment Objectives

- ➔ There is a shift in the assessment objectives to **applied learning**. The change will involve more real life examples



Assessment Objectives

- **Recall** mathematical **fact, concepts, rules and formulae**; perform straightforward **computations** and **algebraic procedures** (AO1)
 - **Interpret information; understand** and **apply mathematical concepts** and **skills** in a variety of contexts (AO2)
 - **Reason mathematically; analyse** information and **make inferences; select appropriate strategies** to solve problems (AO3)
- 



What's New in PSLE 2018?

- New question type:
True/ False/ Impossible to tell
- New content tested:
Solve simple equations

What's New in PSLE 2018?

Example 1

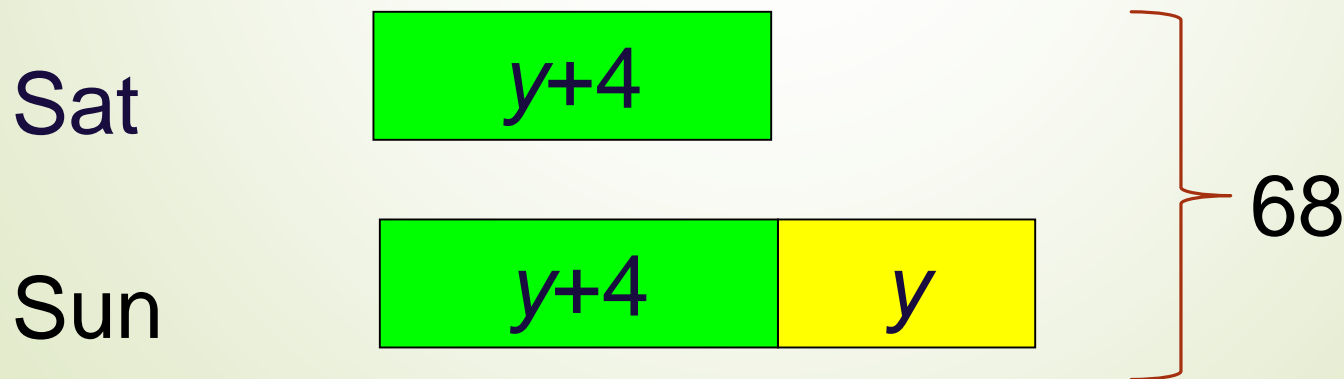
The average height of some children in a class is 150 cm. There is an equal number of boys and girls. The average height of the boys is 160 cm. Each statement is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) in the correct column.

| Statement | True | False | Not possible to tell |
|---|------|-------|----------------------|
| All the boys are taller than all the girls. | | | |
| The average height of the girls is shorter than 150 cm. | | | |

What's New in PSLE 2018?

Example 2

Jess sold $(y+4)$ cakes on Saturday. She sold y cakes on Sunday than on Saturday. Altogether, she sold 68 cakes on the two days. Find the value of y .



Example 1 (Solving a problem sum):

~~At a fruit stall,~~ $\frac{3}{4}$ of the apples were red and the rest were green. ~~In the morning,~~ $\frac{1}{2}$ of the total number of apples were sold, of which $\frac{5}{6}$ of the apples sold were red.

There were 28 green apples left.

How many red apples were sold?

Draw a model

Step 1 : Understand the Problem

I do not know

- Total number of apples
- The actual number of red and green apples

Data

- $\frac{3}{4}$ of the apples were red, $\frac{1}{4}$ were green
- $\frac{1}{2}$ of the total were sold
- 28 green apples left

Draw a model

Step 2 : Come up with a Plan

Thinking Qns:

What is the best strategy to be used?

Drawing Models

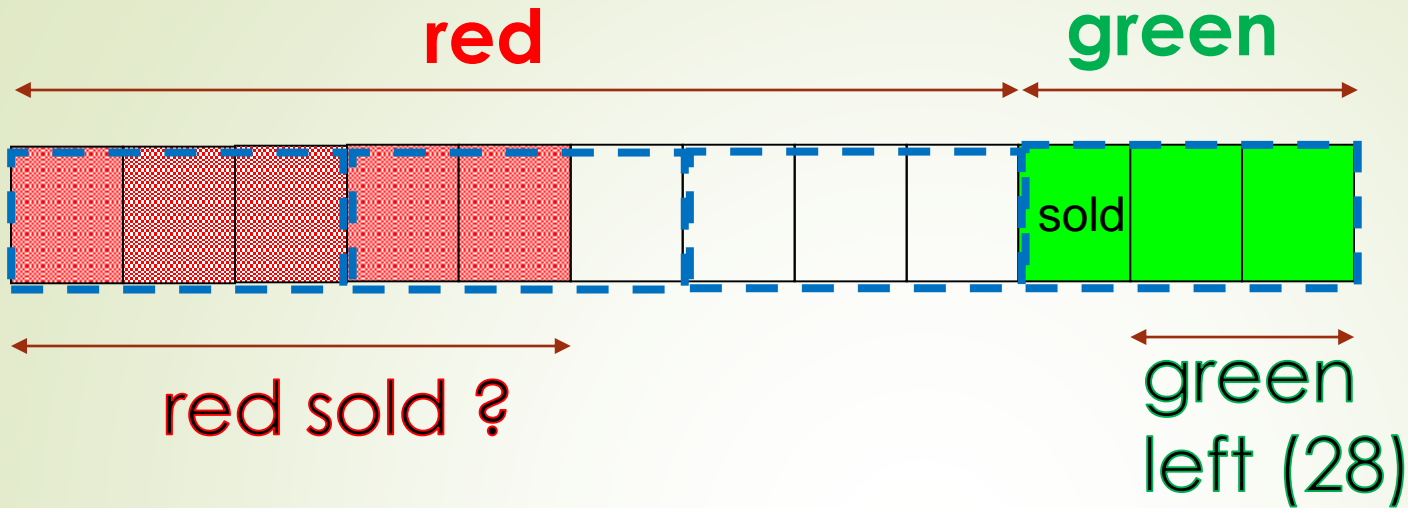
How can I use the data to find more information?

- $\frac{5}{6} \times \frac{1}{2} = \frac{5}{12}$ red apples sold

- So, $\frac{1}{12}$ green apples were sold

} $\frac{6}{12} = \frac{1}{2}$ [sold]

Draw a model



Step 3 : Act on the Plan

2 units = 28 (green apples)

1 unit = 14


5 units = 70

70 red apples were sold.

Step 4 : Relook at the solution **to check** for transfer error

Fun ways to improve your child's performance in PSLE Maths

- Use existing card games or board games (Monopoly) to promote Maths.
- Ask varying questions to make your child think differently and creatively
- Creative problem-solving games: puzzles, origami, strategy books and games.
- All enrichment experiences should not make as an add-on to your child's learning experiences so as to maintain your child's healthy and positive outlook towards PSLE Maths.



One day, a man was sightseeing in Canada to enjoy the maple. He stopped by at a restaurant and ordered a 9-inch-diameter pizza. After waiting for a while, the waiter politely brought two 5-inch-diameter pizzas, and said that they ran out of 9-inch pizzas and the two 5-inch pizzas would replace it and had given him extra! The man, politely told the waiter that he did not gain from the offer.

Why did the man say that?

The man explained...

The mathematical formula of:

Area of circle = πr^2 ,

where π , pi = 3.14159... and r is the radius.

Area of a 9-inch pizza = $3.14 \times 4.5 \times 4.5$

= **63.585 sq inches**

Area of two 5-inch pizza = $3.14 \times 2.5 \times 2.5 \times 2$

= **39.35 sq inches**

So even if he was given 3, 5-inch pizza, he did not gain from it.

Then, how many pizzas were given to the man in the end?

*Thank You and All
the Best for the
coming SA1 & PSLE !*

