PRIMARY 6
MATHEMATICS

MATH TOPICS

SEMESTER 1	SEMESTER 2
Fractions	Algebra
Percentage	Speed
Ratio	Solid Figures
Circles	
Angles in Geometrical Figures	
Pie Charts	
Volume	

PROBLEM SOLVING SKILLS

Note:
The slides show some examples of problem solving skills in Primary 6. They are not exhaustive.

1. 'Before and After' Problem Sums in Whole Numbers

Example

Ann had a total of 285 red and blue beads. She used 45 red beads and 40% of the blue beads. After that, the ratio of the number of red beads to blue beads Ann had was 1 : 3.

(a) What fraction of her blue beads did Ann use?
Give your answer in the simplest form.

(b) How many bead did Ann have in the end?

[PSLE 2018]

PROBLEM SOLVING SKILLS

Note:
The slides show some examples of problem solving skills in Primary 6. They are not exhaustive.

2. Draw a model or diagram

Example

Suyin baked some pies. She gave $\frac{1}{5}$ of them to her relatives and 30 of them to her friends. She was left with $\frac{2}{3}$ of the pies. She packed these into 18 boxes. Some boxes contained 6 pies while the rest contained 12.

(a) How many pies were packed into the 18 boxes?

(b) How many boxes contained 6 pies?

[PSLE 2016]

PROBLEM SOLVING SKILLS

Note:
The slides show some examples of problem solving skills in Primary 6. They are not exhaustive.

3. Look for a Pattern

Example

The first 15 numbers of a number pattern are given below.

4, 0, 1, 2, 4, 0, 1, 2, 4, 0, 1, 2, 4, 0, 1, …

15th

(a) What is the 626th number?

(b) What is the sum of the first 627 numbers?

[PSLE 2017]

EXAMPLES OF PROBLEM SOLVING STRATEGIES

- Draw a model or diagram
- Make a systematic list/Tabulation
- Before / after concept
- Look for a pattern
- Guess & Check
- Work backwards
- Supposition

Etc.

Assessments (Primary 6)

	Weightage	Paper 1 Booklet A	Paper 1 Booklet B	Paper 2	Total
Term 1: TERM REVIEW 1	nil	20 marks	25 marks	55 marks	100 marks
Term 2: TERM REVIEW 2	nil	20 marks	25 marks	55 marks	100 marks
Term 3: PRELIM	100%	20 marks	25 marks	55 marks	100 marks
Term 4: PSLE					

Format of Exam Paper

Paper	Booklet	Item Type	No. of qns	No. of marks per qn	Weighting	Duration
1 Cal. **NOT** allowed	**A**	Multiple-choice	10	1	10%	1 h
			5	2	10%	
	B	Short -answer	5	1	5%	
			10	2	20%	
2 Cal. allowed		Short-answer	5	2	10%	1 h 30 min
		Structured / Long-answer	12	3,4,5	45%	
Total			47		100%	2 h 30 min

Both papers are scheduled on the same day with a break between the two papers.

Paper 1 Booklets A & B:

Use of calculator is NOT ALLOWED

Booklet A: 15 Multiple-Choice Questions (MCQ)

- Indicate answer on qn paper to facilitate checking
- Shade oval in OAS after completing each qn

Booklet B: 15 Short Answer Questions

- To show workings clearly and write the correct answers in the spaces provided
- Do not erase the workings as method marks maybe awarded for the **correct workings** (for 2 marks questions) shown, if the answer is wrong.

Paper 2

Use of calculator is ALLOWED

5 Open-Ended Questions (2 marks each) &
12 Problem Sums (3, 4 or 5 marks)

Problem Sums

- To show each step taken and workings clearly, so that **method marks** and answer marks can be awarded accordingly.
- Pupils are encouraged to **show all steps** as method marks may be awarded, even if the answer is wrong.

LIST OF APPROVED CALCULATORS FOR USE IN MATH EXAMINATIONS

S/N	Calculator Brand	Calculator Model	Approved Period[1]
1	CASIO	FX 82MS	2003 – 2026
2		FX 85MS	2003 – 2026
3		FX 95MS	2003 – 2026
4		FX 96SG Plus	2013 – 2025
5		FX 97SG X	2018 – 2026
6		FX 350MS	2003 – 2026
7	CANON	F-960SG	2017 – 2026
8	SHARP	EL W531S II	2018 – 2026
9		EL W531S II Silver Edition	2021 – 2025
10		EL 533X	2013 – 2024

For updates or approval for other models, refer to https://www.seab.gov.sg/docs/default-source/documents/guidelines-on-the-use-of-calculators_for-2024-exam-(website).pdf

PRESENTATION OF SOLUTIONS

- **Consistency** in units of measure

  3 **kg** x 4 = 12 **kg** ☺

  ~~3 x 4 = 12 **kg**~~ ☹

- **Use equal signs** correctly

  $\frac{1}{2}$ of total amount = $45 ☺

  ~~$\frac{1}{2}$ = $45~~ ☹

PRESENTATION OF SOLUTIONS

- Show the method of solution (working steps) clearly

- Standard units of measurement should accompany the final answers. Missing units in final answers will results in mark deduction.

Example:

Ans: 10 cm

Ans: 264 m

Ans: $517

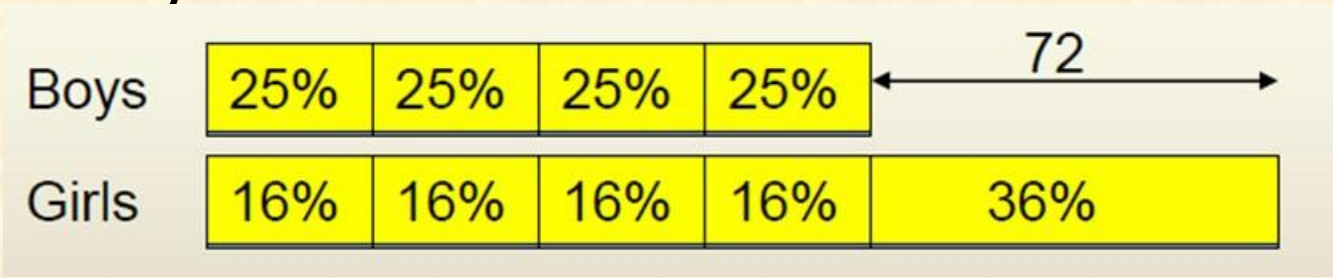
Ans: 34 kg

PRESENTATION OF SOLUTIONS

25% of the boys in a hall is equal to 16% of the girls.

There are 72 more girls than boys.

How many children are there in the hall?



36% of girls = 72

64% of girls = (72 ÷ 36) x 64

= 128

128 x 2 + 72 = 328

Ans: 328

Wrong Mathematical Statement/Presentation

36% = 72

64% = 128

Partnership with the school…

- Assignments from school
  - Ensure conducive working environment.
  - Insist that your child sticks to the given time frame – nothing more and nothing less.
  - Good time management practice.

As a pillar of strength and support for your child…

- Praise, encourage and motivate
- Strategise – focus on areas of weaknesses
- Time Management
- **Ensure that mistakes made are corrected**
- **Exposure to Non-routine problems** – ability to apply the concepts taught in unfamiliar questions/situations
- More math…in other forms
  - Math Games → Coolmath.com
  - Math Literature → Math magazines
  - Daily life
  - Logic puzzles
- **Manage stress** – watch for change in behaviour

THANK YOU