PRIMARY 6 MATHEMATICS

MATH TOPICS

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

PROBLEM SOLVING SKILLS

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]

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

PROBLEM SOLVING SKILLS

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]

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

PROBLEM SOLVING SKILLS

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]

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

Some 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

Assessments (Primary 6)

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

Format of Exam Paper

Paper	Booklet	Item Type	No. of qns	No. of marks per qn	Weighting	Duration
1	**A**	Multiple-choice	10	1	10%	1 h
			5	2	10%	
Cal. **NOT** allowed	**B**	Short -answer	5	1	5%	
			10	2	20%	
2		Short-answer	5	2	10%	
Cal. allowed		Structured / Long-answer	12	3,4,5	45%	1 h 30 min
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	2010 – 2023
9		EL W531S II	2018 – 2026
10		EL W531S II Silver Edition	2021 – 2025
11		EL W531XM	2014 – 2023
12		EL 533X	2013 – 2024

For any updates, refer to https://www.seab.gov.sg/docs/default-source/documents/guidelines_calculators.pdf

Presentation of solutions

- **Consistency** in units of measure

$$3 \text{ kg} \times 4 = 12 \text{ kg}$$

- **Use equal signs** correctly

½ of total amount = $45 ☺

~~½ = $45~~ ☹

- 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.

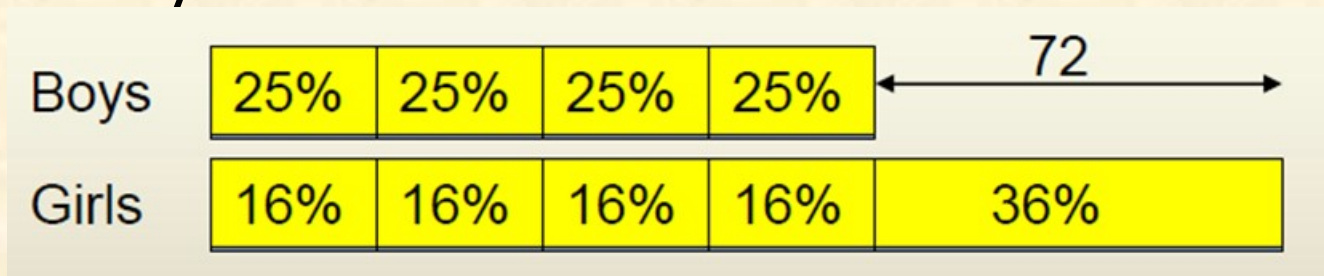**Example:**

Ans: 10 cm   Ans: $517

Ans: 264 m   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?

Boys	25%	25%	25%	25%	← 72 →
Girls	16%	16%	16%	16%	36%

36% of girls = 72

64% of girls = (72 ÷ 36) x 64

$\qquad\qquad$ = 128

128 x 2 + 72 = 328

Ans: 328

Wrong Mathematical Statement/Presentation
36% = 72
64% = 128

Partnership with the school…

Do support the learning of your child in Math by

➢ Reminding him/her to submit completed school assignments punctually

➢ Ensuring a conducive working environment, especially for timed practice papers.

➢ Encouraging him/her to check the completed work and correct the mistakes made in homework.

➢ Encouraging him/her to seek clarifications in class when in doubt.

As a pillar of strength and support for your child…

- Affirm and praise the effort he/she has put in the subject

- Provide joy of learning via physical or digital math games , such as digital games on coolmath.com, logic puzzles and math magazines.

- Discuss the use of Math in daily life, such GST and discount in shopping.

- Guide them to manage their stress by looking out for any change in behaviour or temperament.

THANK YOU