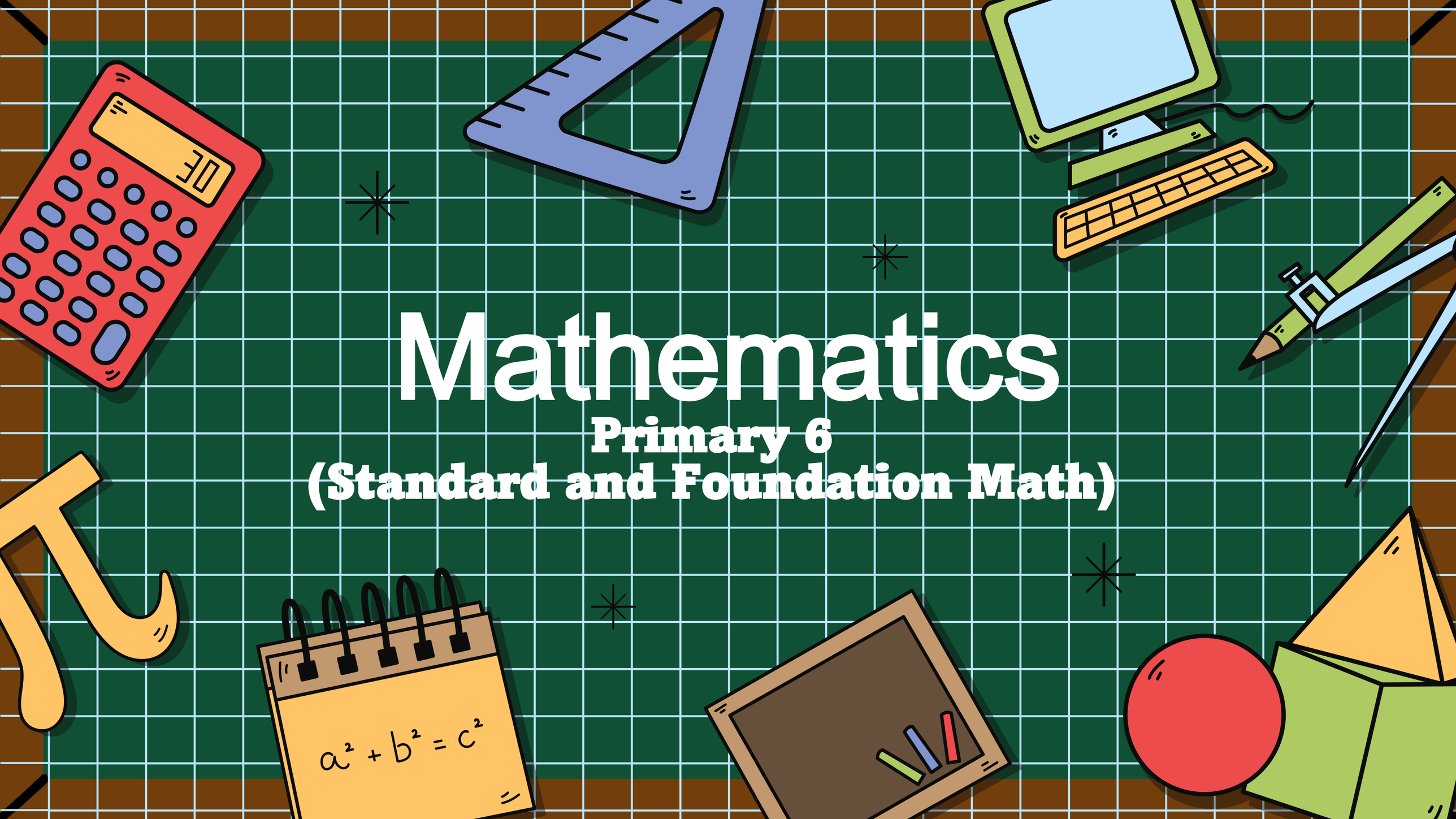
Mathematics

Primary 6

(Standard and Foundation Math)



Outline of Today's Sharing

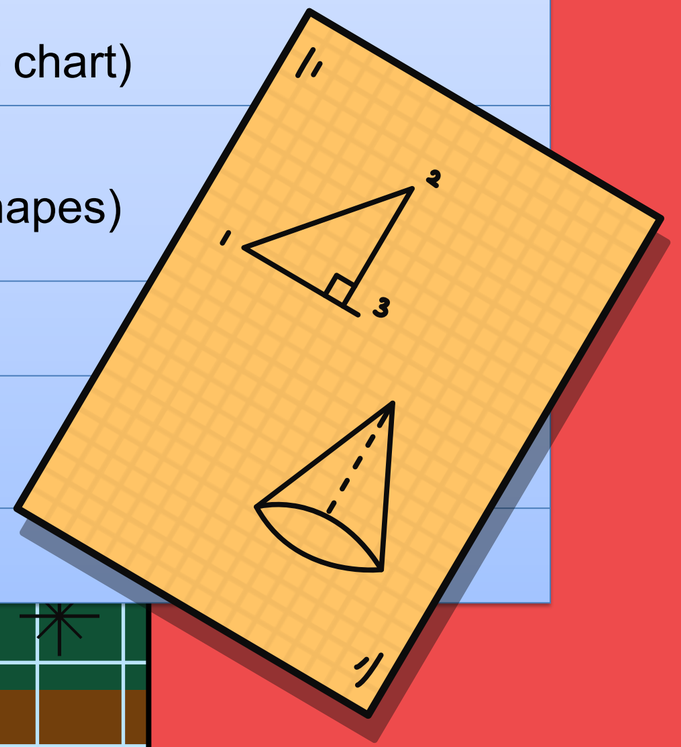
- ✓PSLE Math topics and format
- ✓Question Item types and examples
- ✓Students' common mistakes
- ✓Preparation Strategies

Key Mathematical Strands

1. Numbers & Algebra
2. Measurement & Geometry
3. Statistics
4. Heuristics & Problem-Solving

PSLE Topics

Standard Mathematics	Foundation Mathematics
1. Whole Numbers, Fractions and Decimals	1. Whole Numbers, Fractions and Decimals
2. Measurement (include length, mass, area and perimeter and volume)	2. Measurement (include length, mass, area and perimeter and volume)
3. Data Analysis (include graph and pie chart)	3. Data Analysis (include graph and pie chart)
4. Geometry (include angles and shapes)	4. Geometry (include angles and shapes)
5. Percentage and Ratio	5. Percentage
6. Algebra	6. Average
7. Average	



PSLE Math Paper at a Glance

Paper 1 (No Calculator)

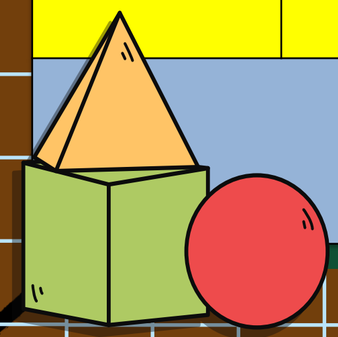
- Booklet A - MCQ
- Booklet B - Short Answer
- Accuracy and basic skills

Paper 2 (With Calculator)

- Structured & Long-answer
- Reasoning and application

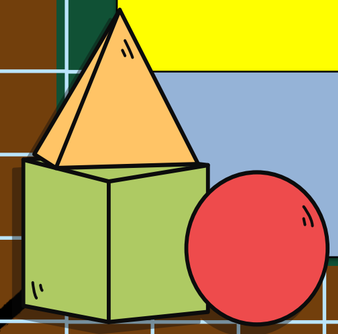
PSLE Format (Standard Math)

Paper	Booklet	Item Type	No. of questions	No. of marks per question	Total marks	Duration
1	A	Multiple-choice	10	1	10	1 h 10 min
			8	2	16	
	B	Short-Answer	12	2	24	
2		Short-Answer	5	2	10	1 h 20 min
		Structured/ Long-Answer	10	3, 4 or 5	40	
Total			45	-	100	2 h 30 min



PSLE Format (Foundation Math)

Paper	Booklet	Item Type	No. of questions	No. of marks per question	Total marks	Duration
1	A	Multiple-choice	10	1	10	1 h
			10	2	20	
	B	Short-Answer	8	2	16	
2		Short-Answer	10	2	20	45 min
		Structured/ Long-Answer	4	3 or 4	14	
Total			42	-	80	1 h 45 min



Types of Questions

1. **Recall and perform computation**

   Recall mathematical facts, concepts, rules and formulae; perform straightforward computations

Recall and perform computation

In the number 43.21, which digit is in the tens place?

(1) 1

(2) 2

(3) 3

(4) 4

Skills required:

- **Recall of concept of decimals place value**

Recall and perform computation

Find the value of 120×25

Skills required:
- Recall whole number multiplication

Ans: _____

Types of Questions

1. **Recall and perform computation**

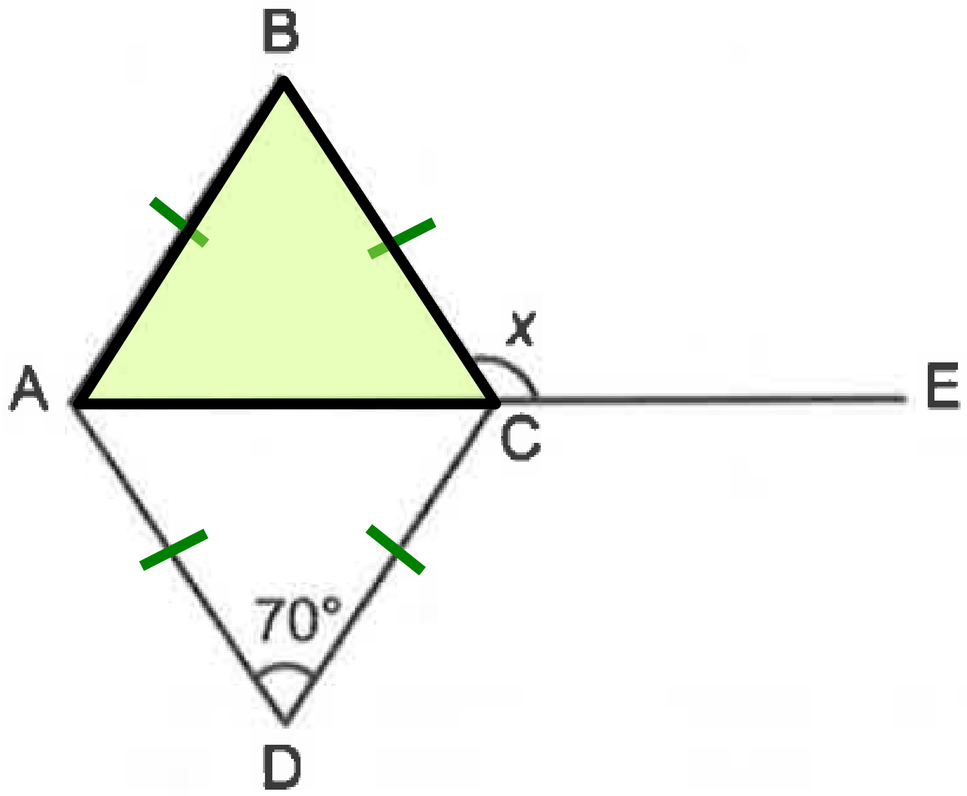
   Recall mathematical facts, concepts, rules and formulae; perform straightforward computations

2. **Understand and apply**

   Interpret information; understand and apply mathematical concepts and skills in a variety of contexts.

Understand and Apply

ABCD is a rhombus. ACE is a straight line. Find $\angle x$.



Skills / concepts required:

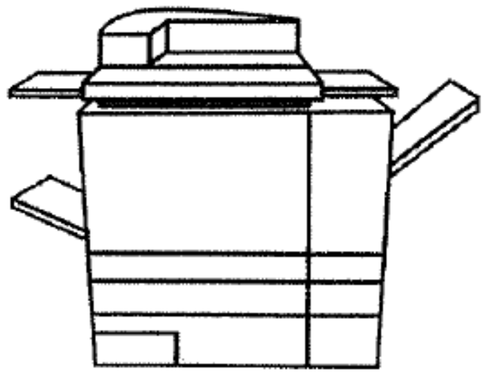
- **Recall the properties of a**
- **Rhombus**
- **Recall the sum of angles of a straight line**

Ans: _____ °

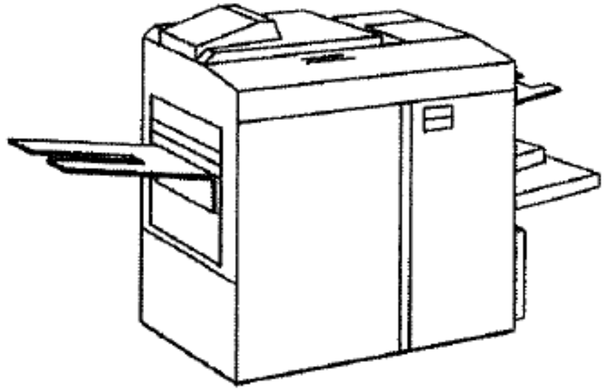
Understand and Apply

The photocopying rates of two machines, P and Q are as shown.

P: 2 pages per second



Q: 7 pages every 5 seconds



Both machines were used to make a copy of a set of notes which had been divided into Part 1 and Part 2. Machine P took 7 minutes to photocopy Part 1 and Machine Q took 8 minutes to photocopy Part 2.

(a) How many pages were there altogether in the set of notes?

(b) Another copy of the same set of notes was made using Machine Q only. How many minutes did Machine Q take?

Skills/ concepts required:

- Concept of rate

Printer P:

1 sec → 2 pages

1 min → 2 × 60 = 120 pages

Printer Q:

5 sec → 7 pages

1 min → 7 × 12 = 84 pages

Understand and Apply (Foundation Math Paper)

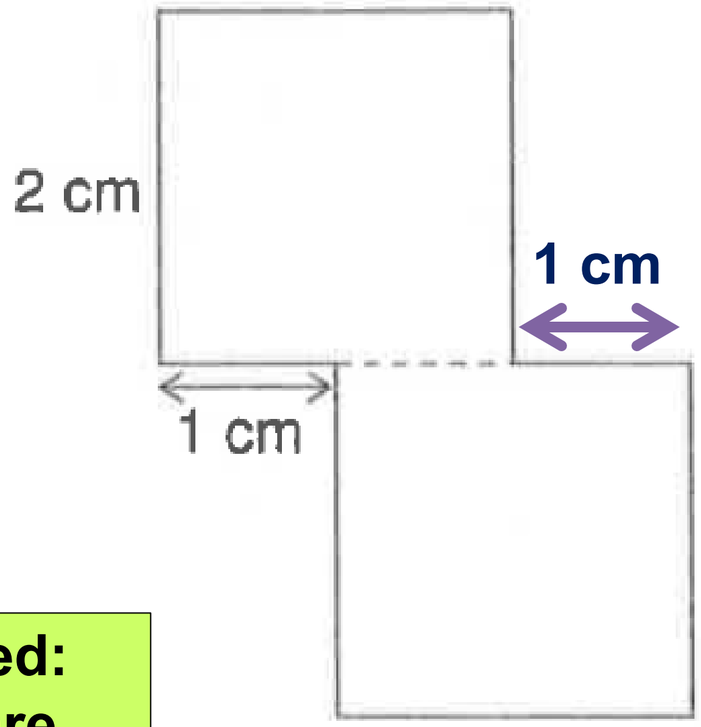
The figure is made up of two identical squares.
What is the perimeter of the figure?

(1) 13 cm

(2) 14 cm

(3) 15 cm

(4) 16 cm



Skills/ concepts required:
- **Properties of a square**
- **Perimeter of square**

Types of Questions

1. **Recall and perform computation**

   Recall mathematical facts, concepts, rules and formulae; perform straightforward computations

2. **Understand and apply**

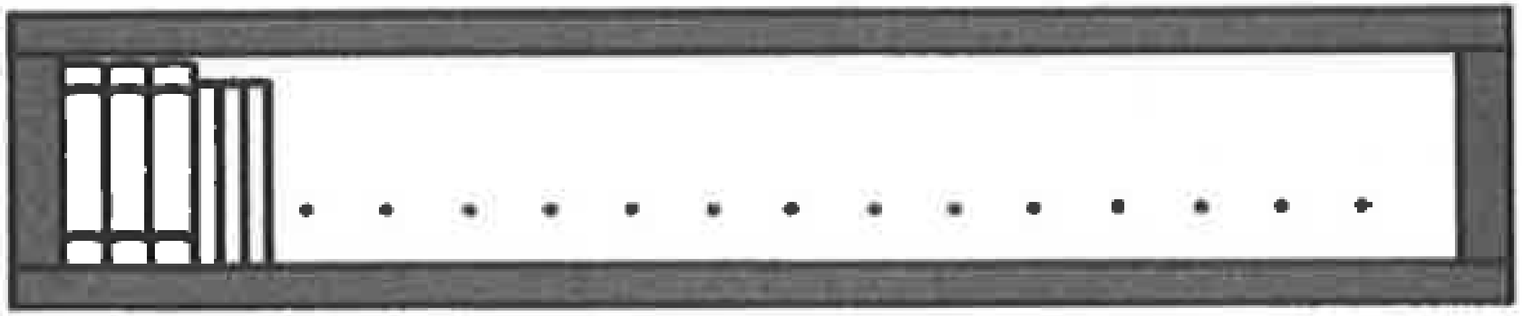
   Interpret information; understand and apply mathematical concepts and skills in a variety of contexts.

3. **Reason and analyse**

   Reason mathematically; analyse information and make inferences; select appropriate strategies to solve problems

Reason and Analyse

A shelf can be packed from end to end with 30 large books or 45 small books. Kevin already packed the shelf with 3 large books and 23 small books. At most, how many more large books can Kevin pack the shelf with?



Skills/ concepts required:

- **Concept of Proportionality**

30 large books = 45 small books

1 large book = $\frac{45}{30}$ = 1.5 small books

Reason and Analyse

A small circle with centre O has been cut from a circular piece of cardboard with the same centre. The radius of the small circle is 8 cm.

The remaining cardboard is then cut into four equal parts along the dotted lines as shown in Figure 1. The four parts are rearranged to form a new shape in Figure 2.

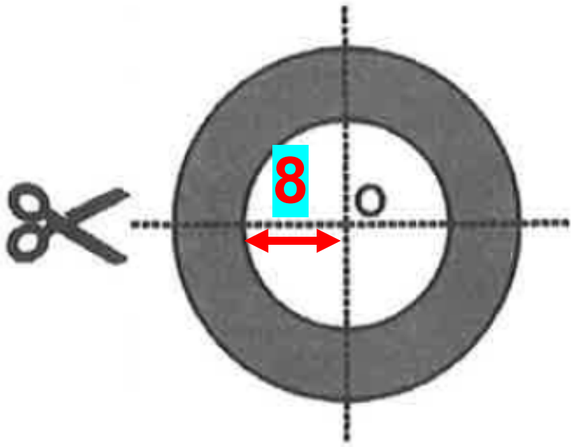


Figure 1

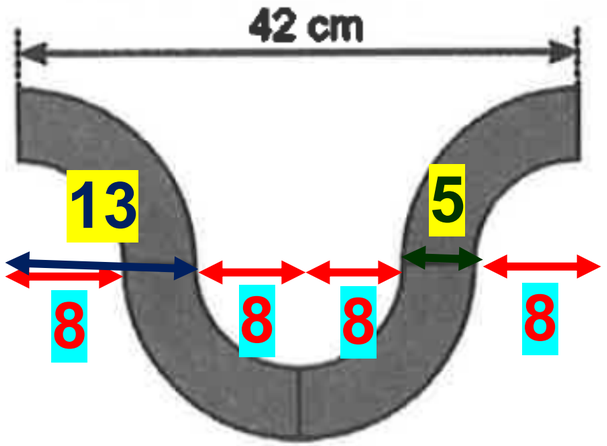


Figure 2 (new shape)

Skills/ concepts required:

- **Area of circle**
- **Visualisation skills**

(a) Find the area of the new shape.

Common Mistakes

1. Misreading questions or transfer error

Misreading Question

Example:

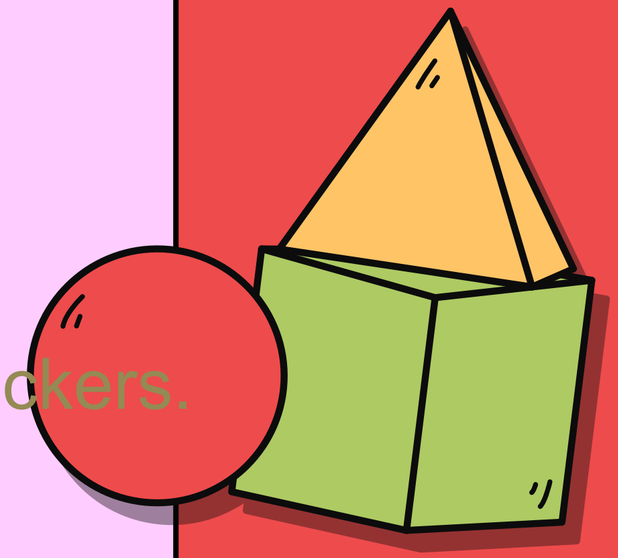
Jane has **25** stickers. Kelly has twice as many stickers.

20 × 2 = 40

Transfer error

Example: 9 x $12 = $**108**

$**100** ÷ 2 = $50



Common Mistakes

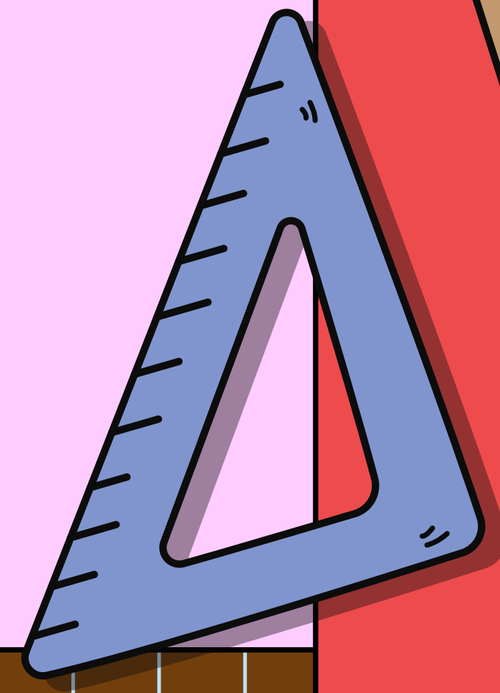
2. **Writing incorrect Math equations**

Example: $\underline{20 + 10} = 30 + 5 = \underline{35}$

(Wrong equations as the 2 steps are combined into one)

3. **Omission or incorrect units of measurement**

Example: 1 km = 100 m (Wrong Fact)



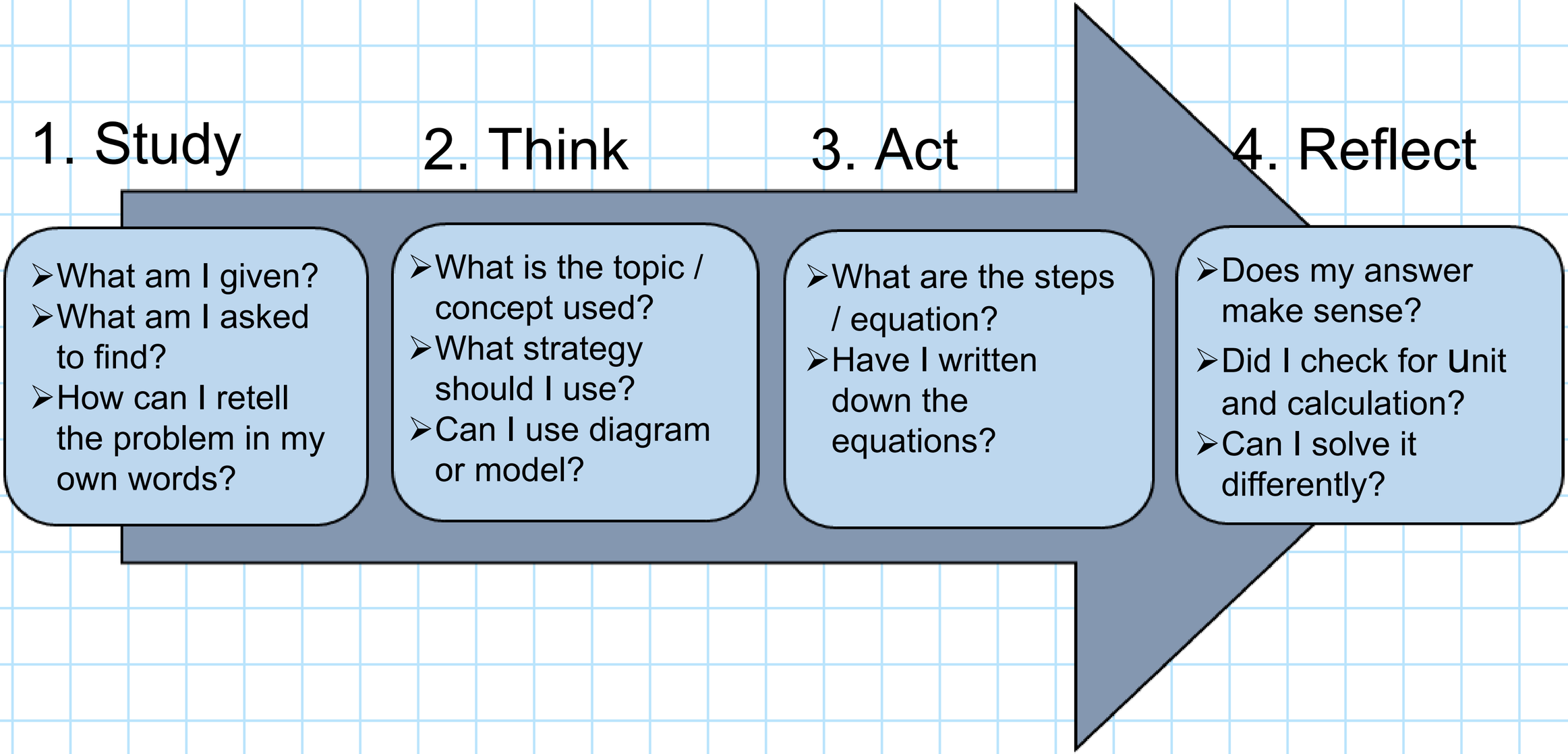
How we will support your child for PSLE

- Supplementary Lessons
- Targeted remediation
- Past Year PSLE Practice Papers
- SLS and Koobits lessons for self-directed learning

How students can ensure that they do well

- Study all important information in the problem, e.g. annotate or underline key words, draw a model.
- Practice time management skill. Skip questions when unsure and return to complete them later.
- Attempt all questions. **Show all the Math equations and workings**.
- Familiarise themselves with the functions required in calculators.
- Check the accuracy of the work, e.g. number transfer, unit of measurements, calculation.

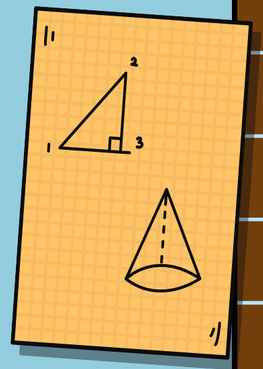
How students can ensure that they do well



How you can support your child for PSLE

- **Monitor the homework completion**
  - ✓ Get your child to present his / her work clearly and systematically

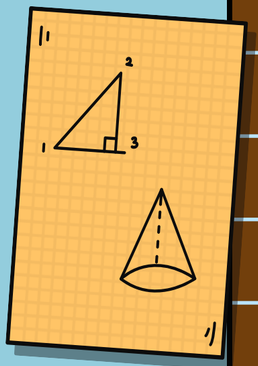
- **Encourage your child to have regular revision**
  - ✓ Re-attempt questions where corrections have been done (independent work)
  - ✓ Get the formula right, e.g. Area (rectangle) = L x B
  - ✓ Commit certain facts into memory, e.g. 0.5 = ½ = 50%



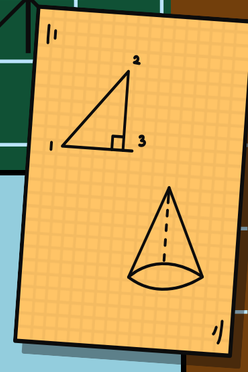
- **Build time management skills**
  - ✓ When doing a timed practice, get your child to complete the practice within the given time

How you can support your child for PSLE

- **Insist that your child writes down all the equations**
- **Guide, don’t give answers**
- **Celebrate progress and focus on effort**
- **Ensure rest–study balance**



It is important to take note that



- **An AL8 in Math is why our Shuqunites need to repeat P6. (They are able to clear EL).**
- **Math is the foundation of many courses in Secondary School, Polytechnic, JC and beyond.**