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MATHEMATICS**



DEPARTMENT'S VISION

**A WORLD-CLASS
COMMUNITY
OF
BUDDING
MATHEMATICIANS**

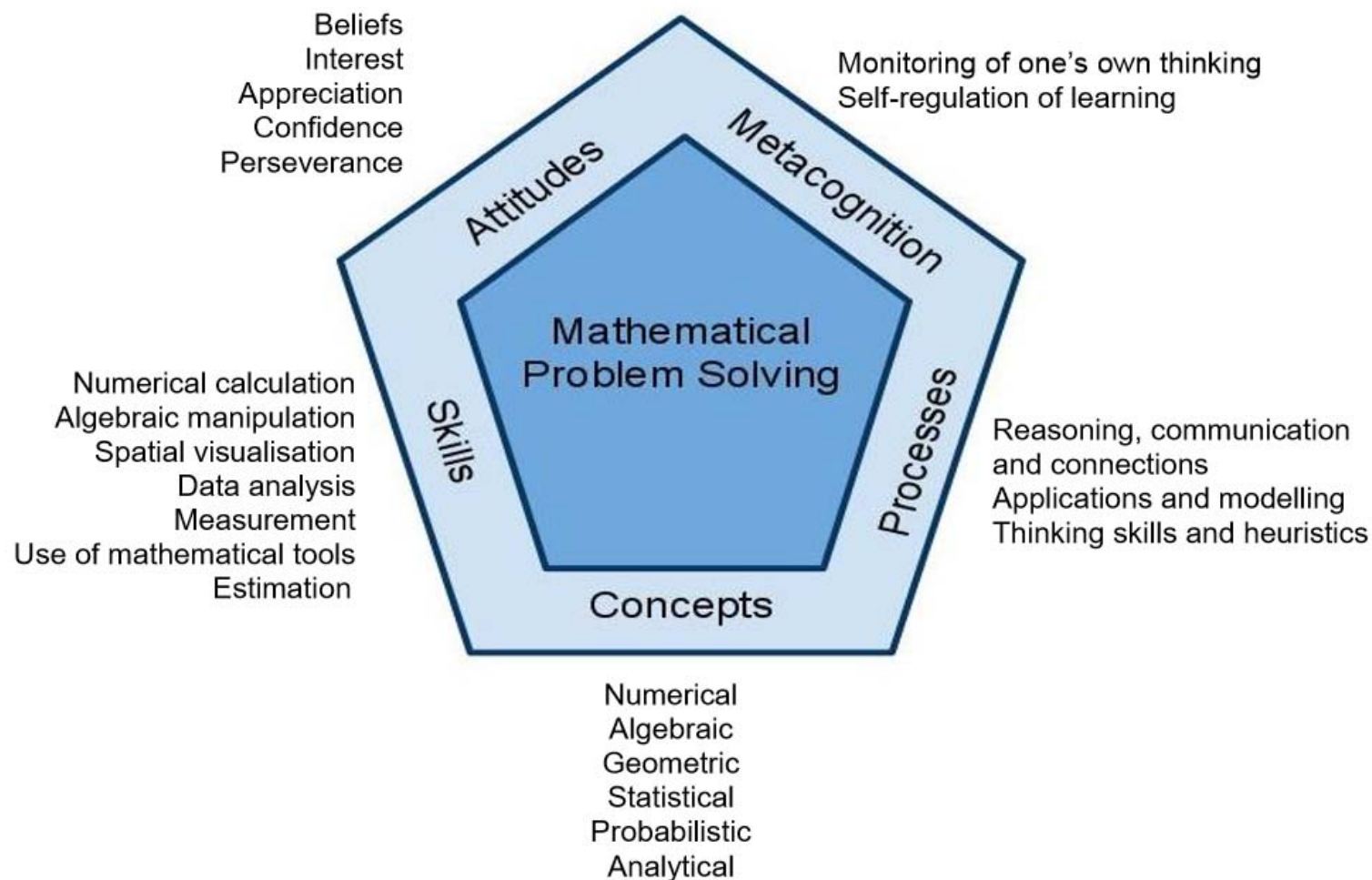


DEPARTMENT'S FOCUS 2017

Love **Math**
Love *Learning* **Math**



MATHEMATICS FRAMEWORK



TEACHING & LEARNING @ TOWNSVILLE

ABSTRACT

PICTORIAL 

CONCRETE 



Use of Calculators

Rationale for introducing calculators in Upper Primary

1. To achieve a better **balance** between the emphasis on computational skills and problem solving skills
2. To widen the repertoire of teaching and learning approaches to include investigations and problems in authentic situations.
3. To help pupils, particularly those with difficulty learning Mathematics, develop greater confidence in doing Mathematics.



Use of Calculators

The use of calculators would not take away the **importance of mental computations.**

Pupils need to have good number sense and estimation skills.

- **Calculators are not allowed in Paper 1**
Emphasis is on mental and manual computational skills
- **Calculators are allowed in Paper 2**
Facilitate computations in solving more complex questions



List of Approved Calculators

The following scientific calculator models are suitable for:

- PSLE Mathematics and Foundation Mathematics Examinations
- GCE N(T), N(A), O and A-Level Examinations

S/N	Calculator Brand	Calculator Model	Approved Period ¹
1	CASIO	FX 82MS	2003 – 2021
2		FX 85MS	2003 – 2021
3		FX 95MS	2003 – 2021
4		FX 95SG Plus	2009 – 2018
5		FX 96SG Plus	2013 – 2021
6		FX 350MS	2003 – 2021



ASSESSMENT



SMA - For Cohort taking PSLE in 2017

Topics	Weighting
Whole Numbers, Fractions, Decimals	30%
Measurement	25%
Geometry	15%
Ratio, Percentage	12%
Data Analysis	10%
Speed	4%
Algebra	4%



SMA - For Cohort talking PSLE in 2018

Topics	Old Format	New Format
Whole Numbers, Fractions, Decimals	30%	25%
Measurement	25%	20%
Geometry	15%	20%
Ratio, Percentage	12%	10%
Statistics	10%	15%
Rate; Speed	4%	5%
Algebra	4%	5%



FMA - For Cohort taking PSLE in 2017

Topics	Weighting
Whole Numbers, Fractions, Decimals	36%
Percentage	10%
Measurement	28%
Geometry	12%
Data Analysis	14%



FMA - For Cohort talking PSLE in 2018

Topics	Old Format	New Format
Whole Numbers, Fractions, Decimals	36%	30%
Percentage	10%	10%
Measurement	28%	25%
Geometry	12%	15%
Statistics	14%	15%
Rate		5%



ASSESSMENT OBJECTIVES (2017 PSLE)

Cognitive Levels	Standard Math	Weightage
Knowledge	Recall specific mathematical facts, concepts, rules and formulae, and to perform straightforward computations.	25%
Comprehension	Interpret data and use mathematical concepts, rules or formulae to solve routine or familiar mathematical problems.	35%
Application & Analysis	Analyse data and/or apply mathematical concepts, rules or formulae in a complex situation, and to solve unfamiliar problems.	40%



ASSESSMENT OBJECTIVES (2017 PSLE)

Cognitive Levels	Foundation Math	Weightage
Knowledge	Recall specific mathematical facts, concepts, rules and formulae, and to perform straightforward computations.	35%
Comprehension	Interpret data and use mathematical concepts, rules or formulae to solve routine or familiar mathematical problems.	40%
Application	Apply mathematical concepts and skills in simple situations, which may require processing of information.	25%



ASSESSMENT OBJECTIVES (2018 PSLE)

Cognitive Levels	Standard Math	Weightage
AO1	Recall mathematical facts, concepts, rules and formulae; perform straightforward computations and algebraic procedures	25%
AO2	Interpret information; understand and apply mathematical concepts and skills in a variety of contexts	40%
AO3	Reason mathematically; analyse information and make inferences; select strategies to solve problems	35%

P5 2017
Std Math
SA1 &2



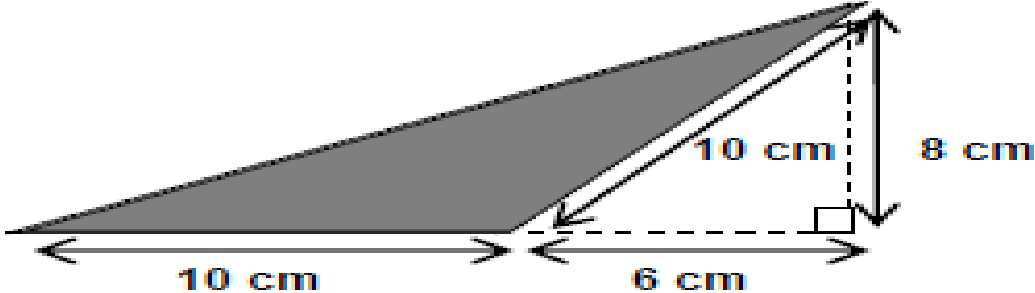
ASSESSMENT OBJECTIVES (2018 PSLE)

Cognitive Levels	Foundation Math	Weightage
AO1	Recall mathematical facts, concepts, rules and formulae; perform straightforward computations and algebraic procedures	35%
AO2	Interpret information; understand and apply mathematical concepts and skills in a variety of simple contexts	50%
AO3	Reason mathematically; analyse information and make inferences in simple situations.	15%

P5 2017
Fdn Math
SA1 &2

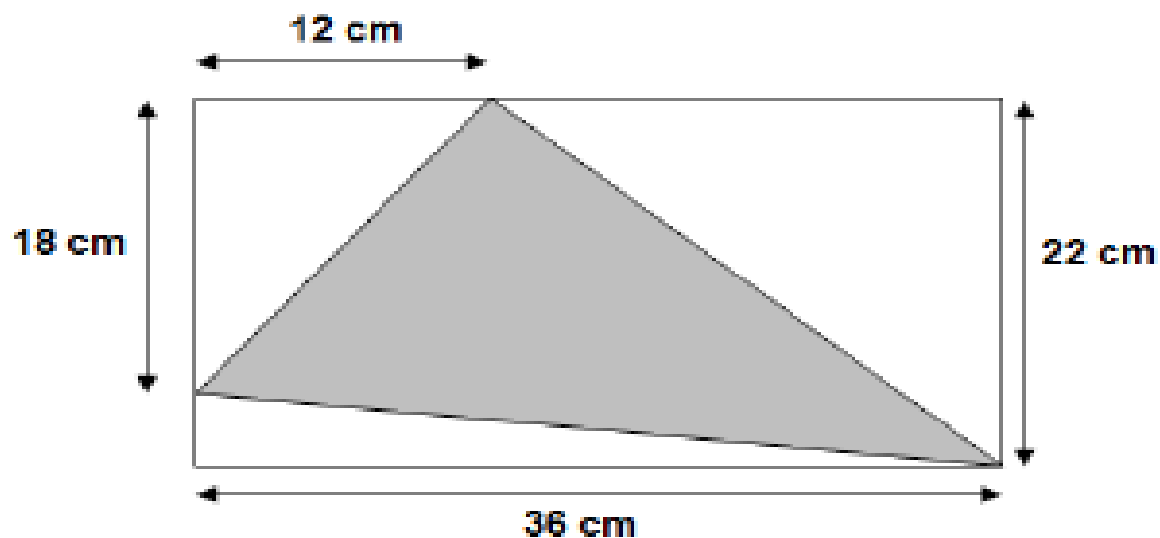


Example of A01 question:

Question	Marks
<p data-bbox="338 491 1603 579">Look at the figure below. Find the area of the shaded triangle.</p>  <p data-bbox="338 935 658 1129">(1) 24 cm^2 (2) 40 cm^2 (3) 50 cm^2 (4) 64 cm^2</p>	2

Example of AO2 question:

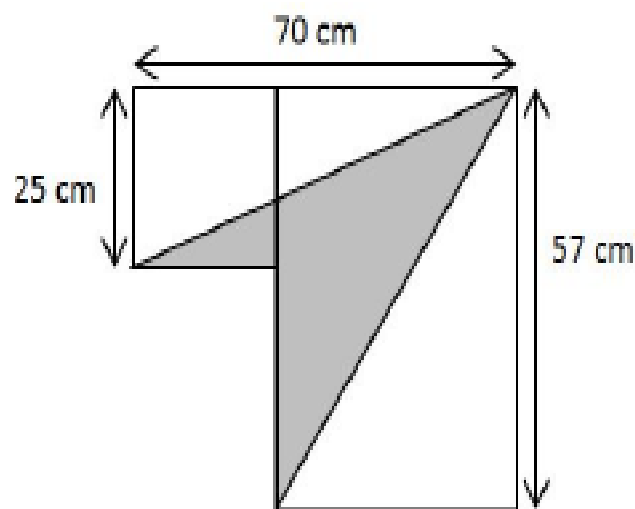
The figure shows a shaded triangle in a rectangle. The length of the rectangle is 36 cm and its breadth is 22 cm. Find the area of the shaded triangle.



4

Example of AO3 question:

The figure is made up of a square and a rectangle. Find the total area of the shaded parts of the figure.



4

AO3

Requires students to *analyse* the given information to find the unknown sides and calculate the relevant areas.

FORMAT OF PAPERS



P6 STANDARD MATH PAPER

Paper	Booklet	Item Type	Number of questions	Number of marks per question	Weighting	Duration
1	A	Multiple-choice	10	1	10%	50 min
			5	2	10%	
	B	Short-answer	10	1	10%	
			5	2	10%	
2		Short-answer	5	2	10%	1 h 40 min
		Structured / Long-answer	13	3, 4, 5	50%	
Total			48	-	100%	2 h 30 min



2018 PSLE Mathematics: Exam Format

P5 2017
SA1 / 2

Paper	Booklet	Item Type	Number of questions	Number of marks per question	Number of marks	Duration
1	A	Multiple-choice	10	1	10	1 h
			5	2	10	
	B	Short-answer	5	1	5	
			10	2	20	
2		Short-answer	5	2	10	1 h 30 min
		Structured/ Long-answer	12*	3, 4, 5	45	
Total			47	-	100	2 h 30 min

Note:

The use of an approved calculator is allowed in Paper 2 but not Paper 1.



P6 FOUNDATION MATH PAPER

Paper	Booklet	Item Type	Number of questions	Number of marks per question	Weighting	Duration
1	A	Multiple-choice	10	1	10%	1 h
			10	2	20%	
	B	Short-answer	10	2	20%	
2		Short-answer	10	2	20%	1 h 15 min
		Structured	8	3, 4, 5	30%	
Total			48	-	100%	2 h 15 min



2018 PSLE Foundation Mathematics: Exam Format

P5 2017
FMA
SA1 & 2

Paper	Booklet	Item Type	Number of questions	Number of marks per question	Number of marks	Duration
1	A	Multiple-choice	10	1	10	1 h
			10	2	20	
	B	Short-answer	10	2	20	
2		Short-answer	10	2	20	1 h
		Structured	6	3, 4	20	
Total			46	-	90	2 h

Note:

The use of an approved calculator is allowed in Paper 2 but not Paper 1.



HOW YOU CAN HELP YOUR CHILD

- Ensure your child attends school regularly and punctually
- School work is to be done first
- Ensure no calculator is used in daily work unless the calculator logo is indicated
- Encourage regular practice which is necessary to attain speed and accuracy. This is a training for resilience and perseverance.
- Talk about Maths as used in day-to-day situations
- Encourage your child to develop good work habits where his/her overall presentation demonstrates
 - good understanding of Mathematics
 - concepts required to complete task



REFERENCES

- **SEAB & MOE websites**
 - www.seab.gov.sg/content/calculator/GuidelinesCalculators.pdf
 - <https://www.moe.gov.sg/education/syllabuses>



**Love Maths
Love Learning Maths**

THANK YOU

