

Study Unit (Content)	Standard	Indicators
<p>3. Base and Number Systems</p> <p>3.1 System of Roman numerals (ASEAN)</p> <p>3.2 System of Base numbers (ASEAN)</p> <p>3.3 Changing Base numbers to other Base numbers (ASEAN)</p>	M 1.4	m 1/1 Apply knowledge and properties of integers for problem-solving.
<p>4. Exponential Powers</p> <p>4.1 Mean of exponential powers (ASEAN)</p> <p>4.2 Operation of exponential powers (ASEAN)</p> <p>4.3 Solve problem by using exponential powers (ASEAN)</p>	M 1.2	<p>m 1/2 Have concept of real numbers expressed in exponential notation with integer indices and write numbers in scientific notation.</p> <p>m 1/3 Explain results of expression in exponential notation of integral numbers, ratios and decimals.</p> <p>m 1/4 Multiply and divide real numbers in the form of exponents with the same bases and integer indices.</p>
<p>5. Basic Geometry</p> <p>5.1 Points, straight lines, line segments, rays and angles. (ASEAN)</p> <p>5.2 Construction of basic geometrical figures (ASEAN)</p> <p>5.3 Bisection a line segment (ASEAN)</p> <p>5.4 Construction of angles (ASEAN)</p> <p>5.5 Construction and drawing triangles, quadrilaterals and parallelograms (ASEAN)</p>	M 3.1	<p>m 1/1 Construct and explain steps of basic geometric construction</p> <p>m 1/2 Construct two-dimensional geometric figures by using geometric construction, and explain steps of construction without emphasizing proof.</p>

Measurement and Evaluation

Total 100 marks (Assessment 60 marks: Midterm test / Final test 40 marks)

Measurement and Evaluation	Evaluation Method	Assessment tool	Marks	Standard / Indicators
1. Pre-midterm	Oral participation, Homework, Exercises, Quizzes, Unit Test, Project	Teacher Review, Notebook, Testpaper, Project (presentation)	25	M 1.4 m1/1 M1.1 m1/1 M1.2 m1/1
2. Midterm test	Midterm Examination	Test Paper	20	M 1.1 m1/1
3. Post-midterm	Oral participation, Homework, Exercises, Quizzes, Unit Test, Project	Teacher Review, Notebook, Testpaper, Project (presentation)	25	M1.2 m1/2 M1.2 m1/3 M1.2 m1/4
4. Final test	Test	Examination	20	M1.2 m2/4

Measurement and Evaluation	Evaluation Method	Assessment tool	Marks	Standard / Indicators
5. Desirable Characteristics	1. Observe	1. Observation	10	1. Love of nation, religion and king 2. Honesty and integrity 3. Self-discipline 4. Avidity of learning 5. Being Economy philosophy sufficiency 6. Responsibility and commitment to work 7. Cherishing thai-ness 8. Public-mindedness 9. Awareness of drugs and vice 10. Assertive leadership
6. Competencies	- Solving Word Problems	- Worksheets	-	1. Understand the concept of the word problem read. 2. Utilize mathematics in a practical way by finding
7. Analytical reading and writing	- Solving Word Problems	- Worksheets	-	1. Understand the concept of the word problem read. 2. Utilize mathematics in a practical way by finding solution to real world problems.