

DAILY LESSON LOG OF M7GE-IIf-1 (Week Six-Day 4)

School		Grade Level	Grade 7																														
Teacher		Learning Area	Mathematics																														
Teaching Date and Time		Quarter	Third																														
I. OBJECTIVES	<i>Objectives must be met over the week and connected to the curriculum standards. To meet the objectives, necessary procedures must be followed and if needed, additional lessons, exercises and remedial activities may be done for developing content knowledge and competencies. These are assessed using Formative Assessment Strategies. Valuing objectives support the learning of content and competencies and enable children to find significance and joy in learning the lessons. Weekly objectives shall be derived from the curriculum guides.</i>																																
A. Content Standards	The learner demonstrates understanding of key concepts of geometry of shapes and sizes, and geometric relationships.																																
B. Performance Standards	The learner is able to create models of plane figures and formulate and solve accurately authentic problems involving sides and angles of a polygon.																																
C. Learning Competencies/ Objectives	Learning Competency: Derives inductively the relationships of exterior and interior angles of a convex polygon (M7GE-IIIIf-1) Learning Objectives: <ol style="list-style-type: none"> 1. Derives inductively the relationships of exterior and interior angles of a convex polygon 2. Find the sum of the measures of the exterior and interior angles of a convex polygon. 3. Demonstrate appreciation of geometric shapes and its relationships. 																																
II. CONTENT	Polygon																																
III. LEARNING RESOURCES	teacher's guide, learner's module, protractor, pencil, paper																																
A. References																																	
1. Teacher's Guide	Pages 260-268																																
2. Learner's Materials	Pages 212 – 219																																
3. Textbook pages																																	
4. Additional Materials from Learning Resource (LR) portal																																	
B. Other Learning Resources																																	
IV. PROCEDURES	<i>These steps should be done across the week. Spread out the activities appropriately so that pupils/students will learn well. Always be guided by demonstration of learning by the pupils/ students which you can infer from formative assessment activities. Sustain learning systematically by providing pupils/students with multiple ways to learn new things, practice the learning, question their learning processes, and draw conclusions about what they learned in relation to their life experiences and previous knowledge. Indicate the time allotment for each step.</i>																																
A. Review previous lesson or presenting the new lesson	Review previous lesson by letting the students answer the exercise. Complete the table: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Name of Polygon</th> <th>Number of sides</th> <th>Sum of Interior angles</th> </tr> </thead> <tbody> <tr> <td>Triangle</td> <td>3</td> <td>180⁰</td> </tr> <tr> <td>Quadrilateral</td> <td></td> <td></td> </tr> <tr> <td>Pentagon</td> <td></td> <td></td> </tr> <tr> <td>Nonagon</td> <td></td> <td></td> </tr> <tr> <td>Dodecagon</td> <td></td> <td></td> </tr> <tr> <td>Undecagon</td> <td></td> <td></td> </tr> </tbody> </table> Answers: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Name of Polygon</th> <th>Number of sides</th> <th>Sum of Interior angles</th> </tr> </thead> <tbody> <tr> <td>Triangle</td> <td>3</td> <td>180⁰</td> </tr> <tr> <td>Quadrilateral</td> <td>4</td> <td>360⁰</td> </tr> </tbody> </table>			Name of Polygon	Number of sides	Sum of Interior angles	Triangle	3	180 ⁰	Quadrilateral			Pentagon			Nonagon			Dodecagon			Undecagon			Name of Polygon	Number of sides	Sum of Interior angles	Triangle	3	180 ⁰	Quadrilateral	4	360 ⁰
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		Pentagon	5	540 ⁰	
		Nonagon	9	1260 ⁰	
		Dodecagon	11	1620 ⁰	
		Undecagon	12	1800 ⁰	
B. Establishing a purpose for the lesson	The teacher let the students realize that they need to know not only the number of the sides of a polygon but also the measures of its interior and exterior angles and its relationships.				
C. Presenting examples/ instances of the new lesson	The teacher present the example of a convex polygon its measure of interior angles and exterior angles and corresponding number of sides.				
		Name of Polygon	Number of sides	Sum of Interior angles	Measures of each exterior angle
		Triangle			120 ⁰
		Quadrilateral			
		Pentagon	5		
		Octagon			
		Dodecagon			
	Answers:				
		Name of Polygon	Number of sides	Sum of Interior angles	Measures of each exterior angle
		Triangle	3	180 ⁰	120 ⁰
		Quadrilateral	4	360 ⁰	90 ⁰
		Pentagon	5	540 ⁰	72 ⁰
		Octagon	8	1080 ⁰	45 ⁰
		Dodecagon	12	1800 ⁰	30 ⁰
D. Discussing new concepts and practicing new skills #1	The teacher let the students, name the different types of polygon according to the number of sides.				
		Name of Polygon	Number of sides (n)	Sum of Interior angles (n-2)180⁰	Measures of each exterior angle 360⁰/n
		Triangle	3	(3-2)180 ⁰ = 180 ⁰	360 ⁰ /3 = 120 ⁰
		Quadrilateral	4	(4-2)180 ⁰ = 360	360 ⁰ /4 =
		Pentagon	5	(5-2)180 ⁰ =	360 ⁰ /5 =
		Hexagon	6	(6-2)180 ⁰ =	360 ⁰ /6 =
		Heptagon	7	(7-2)180 ⁰ =	360 ⁰ /7 =
		Octagon	8	(8-2)180 ⁰ =	360 ⁰ /8 =
		Nonagon	9	(9-2)180 ⁰ =	360 ⁰ /9 =
		Decagon	10	(10-2)180 ⁰ =	360 ⁰ /10 =
		Undecagon	11	(11-2)180 ⁰ =	360 ⁰ /11=
		Dodecagon	12	(12-2)180 ⁰ =	360 ⁰ /12=
	Answers:				
		Name of Polygon	Number of sides (n)	Sum of Interior angles (n-2)180⁰	Measures of each exterior angle 360⁰/n
		Triangle	3	(3-2)180 ⁰ = 180 ⁰	360 ⁰ /3 = 120 ⁰
		Quadrilateral	4	(4-2)180 ⁰ = 360 ⁰	360 ⁰ /4 = 90 ⁰
		Pentagon	5	(5-2)180 ⁰ = 540 ⁰	360 ⁰ /5 = 72 ⁰
		Hexagon	6	(6-2)180 ⁰ = 720 ⁰	360 ⁰ /6 = 60 ⁰
		Heptagon	7	(7-2)180 ⁰ = 900 ⁰	360 ⁰ /7 = 51.43 ⁰
		Octagon	8	(8-2)180 ⁰ = 1080 ⁰	360 ⁰ /8 = 45 ⁰
		Nonagon	9	(9-2)180 ⁰ = 1260 ⁰	360 ⁰ /9 = 40 ⁰
		Decagon	10	(10-2)180 ⁰ = 1440 ⁰	360 ⁰ /10 = 36 ⁰
		Undecagon	11	(11-2)180 ⁰ = 1620 ⁰	360 ⁰ /11= 32.73 ⁰
		Dodecagon	12	(12-2)180 ⁰ = 1800 ⁰	360 ⁰ /12= 30 ⁰

E. Discussing new concepts and practicing new skills #2	The teacher discuss further o interior and exterior angles, consecutive vertices, consecutive sides and diagonals found on page 214 – 215 of the Learner’s Module .																
F. Developing mastery (leads to formative assessment 3)	Complete the table: <table border="1" data-bbox="557 368 1429 575"> <thead> <tr> <th data-bbox="557 368 781 468">Name of Polygon</th> <th data-bbox="781 368 979 468">Number of sides (n)</th> <th data-bbox="979 368 1198 468">Sum of Interior angles $(n-2)180^\circ$</th> <th data-bbox="1198 368 1429 468">Measures of each exterior angle $360^\circ/n$</th> </tr> </thead> <tbody> <tr> <td data-bbox="557 468 781 505">15 – gon</td> <td data-bbox="781 468 979 505"></td> <td data-bbox="979 468 1198 505"></td> <td data-bbox="1198 468 1429 505"></td> </tr> <tr> <td data-bbox="557 505 781 543">20 – gon</td> <td data-bbox="781 505 979 543"></td> <td data-bbox="979 505 1198 543"></td> <td data-bbox="1198 505 1429 543"></td> </tr> <tr> <td data-bbox="557 543 781 575">22 – gon</td> <td data-bbox="781 543 979 575"></td> <td data-bbox="979 543 1198 575"></td> <td data-bbox="1198 543 1429 575"></td> </tr> </tbody> </table>	Name of Polygon	Number of sides (n)	Sum of Interior angles $(n-2)180^\circ$	Measures of each exterior angle $360^\circ/n$	15 – gon				20 – gon				22 – gon			
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G. Finding practical applications of concepts and skills in daily living	The teacher ask the students to answer the problem: 1. If the sum of the interior angles of a signage is 360° , how many sides are there? Answer: 4																
H. Making generalizations and abstractions about the lesson	The teacher reiterates to find the measure of angles of a polygon given the sides use $(n-2)180^\circ$ and to find the measure of each exterior angle use $360^\circ/n$.																
I. Evaluating Learning	A. Find the number of sides of the regular polygon when the sum of the measures of its interior angles is given: 1. 2160° 2. 2700° 3. 3600° B. Find the number of side of a regular polygon when the measure of exterior angle is given 4. 20° 5. 36° 6. 15° Answers: A. 1. $2160/180 = 12+2=14$ 2. $2700/180= 15+2 = 17$ 3. $3600/180= 20+2 =22$ B. 4. $360/20 =18$ 5. $360/36 =10$ 6. $360/15 = 24$																
J. Additional activities or remediation																	
V. REMARKS																	
VI. REFLECTION	<i>Reflect on your teaching and assess yourself as a teacher. Think about your students’ progress. What works? What else needs to be done to help the pupils/students learn? Identify what help your instructional supervisors can provide for you so when you meet them, you can ask them relevant questions.</i>																
A. No. of learners who earned 80% of the evaluation																	
B. No. of learners who require additional activities for remediation who scored below 80%																	
C. Did the remedial lesson work? No. of learners who have caught up with the lesson.																	
D. No. of learners who continue to require remediation																	

E. Which of my teaching strategies worked well? Why did these work?	
F. What difficulties did I encounter which my principal or supervisor can help me solve?	
G. What innovation or localized materials did I use/ discover which I wish to share with other teachers	(Localization and Contextualization is done) G. Finding practical application of concepts and skills in daily living.

Prepared by:

WILMA B. MALAZARTE

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