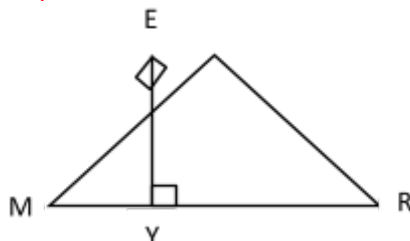


DAILY LESSON LOG OF M9GE-IIIg-h-1 (Day Two)

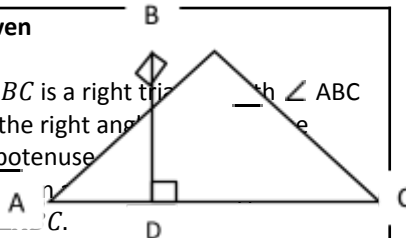
School		Grade Level	Grade 9						
Teacher		Learning Area	Mathematics						
Teaching Date and Time		Quarter	Third						
I. OBJECTIVES	Objectives must be met over the week and connected to the curriculum standards. To meet the objectives, necessary procedures must be followed and if needed, additional 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.								
A. Content Standards	The learner demonstrates understanding of key concepts of similarity.								
B. Performance Standards	The learner is able to investigate, analyze, and solve problems involving similarity through appropriate and accurate representation								
C. Learning Competencies/ Objectives	Learning Competency: Prove the conditions for similarity of triangles(M9GE-IIIg-h-1) Learning Objectives: 1. Identify similar triangles 2. Prove the similarity of triangles using Right Triangle Similarity Theorem 3. Demonstrate appreciation in proving the conditions for similarity triangles as important skills needed to understand concepts of similarity.								
II. CONTENT	Similarity of Triangles – Right Triangle Similarity Theorem								
III. LEARNING RESOURCES									
A. References									
1. Teacher’s Guide	Pages 27-28								
2. Learner’s Materials	Pages 387-389								
3. Textbook pages									
4. Additional Materials from Learning Resource (LR) portal									
B. Other Learning Resources	file:///C:/Users/jamkie/Downloads/righttrianglesimilarity-110217044014-phpapp01.pdf								
IV. PROCEDURES	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.								
A. Review previous lesson or presenting the new lesson	1. The teacher, with the students, reviews the previous lesson by letting the students answer the exercise. Use the AA Similarity Theorem in writing an if-then statement to describe the illustration or in completing the figure based on the if-then statement. A 104° 47° 29° C B D 104° 47° 29° F E <table><tr><td>If:</td><td></td></tr><tr><td>Then:</td><td>$\triangle ABC \sim \rule{1cm}{0.4pt}$</td></tr></table> Answer Key: <table><tr><td>If:</td><td>$\angle A \cong \angle D$; $\angle B \cong \angle E$</td></tr></table>			If:		Then:	$\triangle ABC \sim \rule{1cm}{0.4pt}$	If:	$\angle A \cong \angle D$; $\angle B \cong \angle E$
If:									
Then:	$\triangle ABC \sim \rule{1cm}{0.4pt}$								
If:	$\angle A \cong \angle D$; $\angle B \cong \angle E$								

	Then:	$\triangle ABC \sim \triangle DEF$																
B. Establishing a purpose for the lesson	The teacher lets the students realize that proving the conditions for similarity of triangles using Right Triangle Similarity Theorem is an important skill needed to understand the concepts of similarity.																	
C. Presenting examples/ instances of the new lesson	The teacher lets the students go to their respective groups of 5 and do Activity 16: Right Angle Similarity Theorem and its Proof found on page 386-387 of the Learner’s Module. The teacher will provide strips of paper with statements and the students will post it in the board. Given $\triangle MER$ is a right triangle <u>with</u> $\angle MER$ as the right angle and MR as the <u>hypotenuse</u>. EY is an altitude to the hypotenuse of $\triangle MER$. Prove $\triangle MER \cong \triangle EYR \cong \triangle MYE$ Answer Key:  <table><thead><tr><th>Statements</th><th>Reasons</th></tr></thead><tbody><tr><td>1.1 $\triangle MER$ is a right triangle with $\angle MER$ as the <u>right</u> angle and MR as the hypotenuse. 1.2 EY is an altitude to the hypotenuse of $\triangle MER$.</td><td>Given</td></tr><tr><td>2. $EY \perp MR$</td><td>Definition of altitude</td></tr><tr><td>3. $\angle MYE$ and $\angle EYR$ are right angles</td><td>Definition of perpendicular lines</td></tr><tr><td>4. $\angle MYE \cong \angle EYR \cong \angle MER$</td><td>Definition of right angles</td></tr><tr><td>5. $\angle YME \cong \angle EMR$; $\angle YRE \cong \angle ERM$</td><td>Reflexive Property</td></tr><tr><td>6. $\triangle MYE \sim \triangle MER$; $\triangle MER \sim \triangle EYR$</td><td>AA Similarity Theorem</td></tr><tr><td>7. $\triangle MER \cong \triangle EYR \cong \triangle MYE$</td><td>Transitive Property</td></tr></tbody></table>		Statements	Reasons	1.1 $\triangle MER$ is a right triangle with $\angle MER$ as the <u>right</u> angle and MR as the hypotenuse. 1.2 EY is an altitude to the hypotenuse of $\triangle MER$.	Given	2. $EY \perp MR$	Definition of altitude	3. $\angle MYE$ and $\angle EYR$ are right angles	Definition of perpendicular lines	4. $\angle MYE \cong \angle EYR \cong \angle MER$	Definition of right angles	5. $\angle YME \cong \angle EMR$; $\angle YRE \cong \angle ERM$	Reflexive Property	6. $\triangle MYE \sim \triangle MER$; $\triangle MER \sim \triangle EYR$	AA Similarity Theorem	7. $\triangle MER \cong \triangle EYR \cong \triangle MYE$	Transitive Property
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D. Discussing new concepts and practicing new skills #1	The teacher discusses with the students the process of arriving at the answer of each exercise in Activity 16. Furthermore, he/she facilitates the drawing of answers of the statements from the students in a manner that it is interactive. This can be done by asking other students to react on the answers given by the other groups.																	
E. Discussing new concepts and practicing new skills #2																		

F. Developing mastery (leads to formative assessment 3)

The teacher lets the students, in pairs, answer another item indicated below.

Given



$\triangle ABC$ is a right triangle with $\angle ABC$ as the right angle and AC as the hypotenuse. BD is an altitude to the hypotenuse of $\triangle ABC$.

Prove

$\triangle ABC \cong \triangle BDC \cong \triangle ADB$

Statements	Reasons
1.1 $\triangle ABC$ is a right triangle with $\angle ABC$ as the right angle and AC as the hypotenuse. 1.2 BD is an altitude to the hypotenuse of $\triangle ABC$.	
2. $BD \perp AC$	
3. $\angle ADB$ and $\angle BDC$ are right angles	
4. $\angle ADB \cong \angle ABC \cong \angle BDC$	
5. $\triangle ADB$ and $\triangle BDC$ are right triangles.	
6. $\angle DAB \cong \angle BAC$; $\angle DCB \cong \angle BCA$	
7. $\triangle ADB \sim \triangle ABC$; $\triangle ABC \sim \triangle BDC$	
8. $\triangle ABC \cong \triangle BDC \cong \triangle ADB$	

Answer Key:

Statements	Reasons
1.1 $\triangle ABC$ is a right triangle with $\angle ABC$ as the right angle and AC as the hypotenuse. 1.2 BD is an altitude to the hypotenuse of $\triangle ABC$.	Given
2. $BD \perp AC$	Definition of altitude
3. $\angle ADB$ and $\angle BDC$ are right angles	Definition of perpendicular lines
4. $\angle ADB \cong \angle ABC \cong \angle BDC$	Definition of right angles
5. $\triangle ADB$ and $\triangle BDC$ are right triangles.	Definition of right triangles
6. $\angle DAB \cong \angle BAC$; $\angle DCB \cong \angle BCA$	Reflexive Property
7. $\triangle ADB \sim \triangle ABC$; $\triangle ABC \sim \triangle BDC$	AA Similarity Theorem
8. $\triangle ABC \cong \triangle BDC \cong \triangle ADB$	Transitive Property

G. Making generalizations and abstractions about the lesson

The Right Triangle Similarity Theorem – In any right triangle, the altitude to the hypotenuse divides the triangle into two right triangles, which are similar to each other and to the given right triangle.


$$\Delta \text{YES} \cong \Delta \text{ENS} \cong \Delta \text{YNE}$$

Statements	Reasons
1.	Given
2. $\overline{EN} \perp \overline{YS}$	
3. $\angle YNE$ and $\angle ENS$ are right angles	
	Definition of right angles
	Definition of right triangles
6. $\angle NYE \cong \angle EYS$; $\angle NSE \cong \angle ESY$	
	AA Similarity Theorem
8. $\triangle YES \cong \triangle ENS \cong \triangle MYE$	

Statements	Reasons
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	1.1 $\triangle YES$ is a right triangle with $\angle YES$ as the right angle and YS as the hypotenuse. 1.2 EN is an altitude to the hypotenuse of $\triangle YES$.	Given
	2. $EN \perp YS$	Definition of altitude
	3. $\angle YNE$ and $\angle ENS$ are right angles	Definition of perpendicular lines
	4. $\angle YNE \cong \angle YES \cong \angle ENS$	Definition of right angles
	5. $\triangle YNE$ and $\triangle ENS$ are right triangles.	Definition of right triangles
	6. $\angle NYE \cong \angle EYS$; $\angle NSE \cong \angle ESY$	Reflexive Property
	7. $\triangle YNE \sim \triangle YES$; $\triangle YES \sim \triangle ENS$	AA Similarity Theorem
	8. $\triangle YES \cong \triangle ENS \cong \triangle MYE$	Transitive Property
I. 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?		