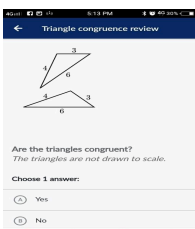
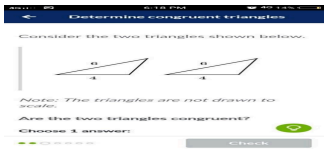
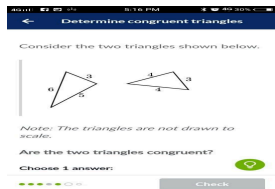
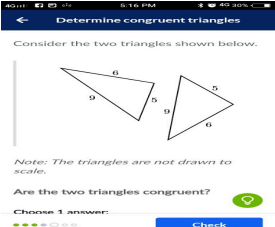
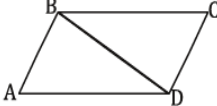
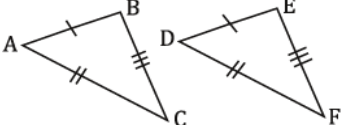
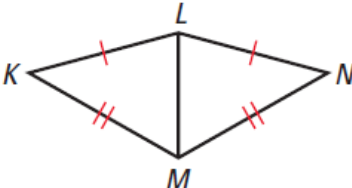


Daily Lesson Log of M8GE-IIIg-1 (Week-Seven-Day One)

School		Grade Level	Grade 8
Teacher		Learning Area	Mathematics
Teaching Date and Time		Quarter	Third
I. OBJECTIVES			
A. Content Standards	Demonstrates understanding of key concepts of logic and reasoning.		
B. Performance Standards	1. Is able to formulate an organized plan to handle a real-life situation. 2. Is able to communicate mathematical thinking with conference and clarity in formulating, investigating, analyzing, and solving real-life problems involving congruent triangles using appropriate and accurate representations.		
C. Learning Competencies/ Objectives	Learning Competency: Proves two triangles are congruent. (M8GE-IIIg-1) Learning Objectives: 1. Recall on the different properties, definition, and theorems needed in proving two triangles are congruent. 2. Prove two triangles are congruent by SSS Triangle Congruence Postulate. 3. Demonstrate appreciation on recalling on triangle congruence is important in proving two triangles are congruent.		
II. CONTENT	Proving Two Triangles are Congruent by SSS Triangle Congruence Postulate		
III. LEARNING RESOURCES	teacher’s guide, learner’s module, internet/google		
A. References			
1. Teacher’s Guide pages			
2. Learner’s Materials pages	Pages 349-366		
3. Textbook pages			
4. Additional Materials from Learning Resource (LR) portal			
B. Other Learning Resources			
IV. PROCEDURES			
A. Review previous lesson or presenting the new lesson	The teacher will provide hand-outs to the students on the different properties, definition, and theorems needed to recall in proving two triangles are congruent. Then, let them answer the guide questions. Guide Questions: 1. What are the different properties, definition, and theorems needed to recall in proving two triangles are congruent? 2. When do we use these properties, definition, and theorems?		
B. Establishing a purpose for the lesson	The teacher lets the students realize that recalling on triangle congruence is important in proving two triangles are congruent.		
C. Presenting examples/ instances of the new lesson	The teacher asks the students to answer these items. Are these triangles congruent? (<i>The triangles are not drawn to scale</i>) a. Yes b. no c. There is not enough information to say. 1.  3.  4.   Answers:		

	1. a 2. a 3. c 4. a																				
D. Discussing new concepts and practicing new skills #1	The teacher together with the students will discuss the process of arriving to the answer of each item.																				
E. Discussing new concepts and practicing new skills #2	The teacher will present and discuss a sample of proving two are congruent to the students. He/she will also highlight the different steps in proving two triangles are congruent. 1. Given: $\overline{AB} \cong \overline{CD}$, $\overline{AD} \cong \overline{CB}$  Prove: $\triangle ABD \cong \triangle BCD$ <table border="1"> <thead> <tr> <th>Statements</th><th>Reasons</th></tr> </thead> <tbody> <tr> <td>1. $\overline{AB} \cong \overline{CD}$</td><td>1. Given</td></tr> <tr> <td>2. $\overline{AD} \cong \overline{CB}$</td><td>2. Given</td></tr> <tr> <td>3. $\overline{BD} \cong \overline{BD}$</td><td>3. Reflexive property</td></tr> <tr> <td>4. $\triangle ABD \cong \triangle CDB$</td><td>4. SSS</td></tr> </tbody> </table> STEPS IN PROVING TWO TRIANGLES ARE CONGRUENT - Mark the illustration with the given congruent corresponding parts. - Mark the missing congruent corresponding parts. - Support the missing congruent corresponding parts using mathematical systems (definitions, postulates, and theorems). - Write the statements and reasons to prove.	Statements	Reasons	1. $\overline{AB} \cong \overline{CD}$	1. Given	2. $\overline{AD} \cong \overline{CB}$	2. Given	3. $\overline{BD} \cong \overline{BD}$	3. Reflexive property	4. $\triangle ABD \cong \triangle CDB$	4. SSS										
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F. Developing mastery (leads to formative assessment 3)	The teacher will let the students work in pairs to do the task presented below. Directions: Fill in any missing statements or reasons of the following proof. Choose your answer on the box Given SSS ASA $\overline{BC} \cong \overline{EF}$ $\overline{AC} \cong \overline{DF}$ $\angle A \cong \angle D$ 1. Given: $\overline{AB} \cong \overline{DE}$, $\overline{AC} \cong \overline{DF}$, and $\overline{BC} \cong \overline{EF}$  Prove: $\triangle ABC \cong \triangle DEF$ <table border="1"> <thead> <tr> <th>Statements</th><th>Reasons</th></tr> </thead> <tbody> <tr> <td>1. $\overline{AB} \cong \overline{DE}$</td><td>1.</td></tr> <tr> <td>2.</td><td>2.</td></tr> <tr> <td>3.</td><td>3.</td></tr> <tr> <td>4.</td><td>4. SSS</td></tr> </tbody> </table> Answer: <table border="1"> <thead> <tr> <th>Statements</th><th>Reasons</th></tr> </thead> <tbody> <tr> <td>1.</td><td>1. Given</td></tr> <tr> <td>2. $\overline{AC} \cong \overline{DF}$</td><td>2. Given</td></tr> <tr> <td>3. $\overline{BC} \cong \overline{EF}$</td><td>3. Given</td></tr> <tr> <td>4. $\triangle ABC \cong \triangle DEF$</td><td>4.</td></tr> </tbody> </table>	Statements	Reasons	1. $\overline{AB} \cong \overline{DE}$	1.	2.	2.	3.	3.	4.	4. SSS	Statements	Reasons	1.	1. Given	2. $\overline{AC} \cong \overline{DF}$	2. Given	3. $\overline{BC} \cong \overline{EF}$	3. Given	4. $\triangle ABC \cong \triangle DEF$	4.
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G. Finding practical applications of concepts and skills in daily living																	
H. Making generalizations and abstractions about the lesson	The teacher summarizes the mathematical skills used to prove two triangles are congruent by asking questions like: 1. What did you do to fill in the missing statement or reason in the given proof? 2. How do you prove that the two triangles are congruent by SSS Congruence Postulate? Possible Answers: 1. Identified the known information and check on properties, postulates, or theorems that may justify the given statement 2. Set up a two-column proof, write down the given (congruent corresponding sides of the two triangles), put additional information derived from the given and the figure (congruent corresponding side of the two triangles), support every statement with the correct theorem, postulate, or property, and check the order of the proof.																
I. Evaluating Learning	The teacher lets the students answer individually the formative assessment . Directions: Fill in any missing statements or reasons of the following proof. Choose your answer on the box. Given SSS ASA Reflexive Property Vertical Angles $\overline{AC} \cong \overline{DF}$ 1. Given: $\overline{KL} \cong \overline{LN}$ and $\overline{KM} \cong \overline{NM}$ Prove: $\triangle KLM \cong \triangle NLM$  Proof: <table border="1"> <thead> <tr> <th>Statements</th><th>Reasons</th></tr> </thead> <tbody> <tr> <td>1. $\overline{KL} \cong \overline{LN}$</td><td>1.</td></tr> <tr> <td>2.</td><td>2. Given</td></tr> <tr> <td>3. $\overline{LM} \cong \overline{LM}$</td><td>3.</td></tr> <tr> <td>4. $\triangle KLM \cong \triangle NLM$</td><td>4.</td></tr> </tbody> </table> Answers: 1. <table border="1"> <thead> <tr> <th>Statements</th><th>Reasons</th></tr> </thead> <tbody> <tr> <td>1.</td><td>1. Given</td></tr> <tr> <td>2. $\overline{AC} \cong \overline{DF}$</td><td>2.</td></tr> </tbody> </table>	Statements	Reasons	1. $\overline{KL} \cong \overline{LN}$	1.	2.	2. Given	3. $\overline{LM} \cong \overline{LM}$	3.	4. $\triangle KLM \cong \triangle NLM$	4.	Statements	Reasons	1.	1. Given	2. $\overline{AC} \cong \overline{DF}$	2.
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4.	4. SSS				
J. Additional activities or remediation					
V. REMARKS					
VI. REFLECTION	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.				
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					

NOTES:

9 Most Common Properties, Definitions & Theorems for Triangles

1. Reflexive Property: $AB = BA$ When the triangles have an angle or side in common	6. Definition of a Midpoint Results in two segments being congruent
2. Vertical Angles are Congruent When two lines are intersecting	7. Definition of an angle bisector Results in two angles being congruent
3. Right Angles are Congruent When you are given right triangles and/or a square/ rectangle	8. Definition of a perpendicular bisector Results in 2 congruent segments and right angles.
4. Alternate Interior Angles of Parallel Lines are congruent When the givens inform you that two lines are parallel	9. 3rd angle theorem If 2 angles of a triangle are $\cong$ to 2 angles of another triangle, then the 3rd angles are $\cong$
5. Definition of a segment bisector Results in 2 segments being congruent	<i>Note:</i> DO NOT ASSUME ANYTHING IF IT IS NOT IN THE GIVEN

Congruence Postulates	
Name	Definition
Reflexive Property of Congruence	$A \cong A$
Symmetric Property of Congruence	If $A \cong B$, then $B \cong A$
Transitive Property of Congruence	If $A \cong B$ and $B \cong C$ then $A \cong C$

Triangle Congruence Postulates

