DAILY LESSON LOG OF MATH9GE- IIIi-2(Day 1)

School		Grade Level	Grade 9
Teacher		Learning Area	Mathematics
Teaching Date and Time		Quarter	Third
I.OBJECTIVES			
A. Content Standards	The learner demonstrates understanding of key concepts of parallelograms and triangle similarity.		
B. Performance Standards	The learner is able to investigate, analyse, and solve problems involving parallelograms and triangle similarity through appropriate and accurate representation.		
C. Learning Competencies/ Objectives	Learning Competency: Proves the Pythagorean Theorem Learning Objectives: 1. State the Pythagorean Theorem. 2. Solve for the unknown quantities using the Pythagorean Theorem. 3. Apply the Pythagorean theorem in solving problems involving real life situations.		
II.CONTENT	Proves the Pythagorean Theorem		
III.LEARNING RESOURCES			
A. References			
1. Teacher's Guide			
2. Learner's Materials	Page: 389- 392		
3. Textbook pages	Grade 9 Mathematics Patterns and Practicalities page 328-329		
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 ask the students to cut out 3 squares using graphing papers with the following measures: 1. A square with an area of 9, 16 and 25 squares units.(Note: one small square in a graphing paper is equivalent to one square unit.) 2. Arrange the sides of the 3 squares to form a right triangle on the bond paper. Guide the students using the following question: What is the relationship between the sum of the squares of the length of the two legs of a right triangle and the square of the length of the hypotenuse? Possible Answer: The square of the hypotenuse of a right triangle is equal to the sum of the squares of the legs.		
B. Establishing a purpose for the lesson	The teacher lets the students realize that the square of the hypotenuse of a right triangle is equal to the sum of the squares of the legs.		
C. Presenting examples/ instances of the new lesson	The teacher lets the students to complete the table below. Complete the following table of Pythagorean Triples: The first one is done for you.		

	a	**b**	**c**	**check:** $a^2 + b^2 = c^2$

Original	3	4	5	9 + 16 = 25
x2	6	8	10	36 + 64 = 100
x3				
x4				

D. Discussing new concepts and practicing new skills #1

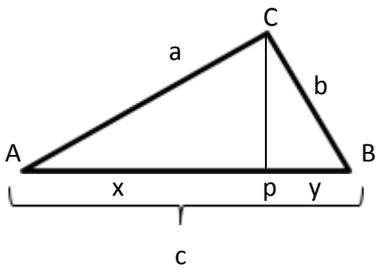
The teacher will discuss the answers of the previous activity.

Answer Key:

	a	**b**	**c**	**check:** $a^2 + b^2 = c^2$
Original	3	4	5	9 + 16 = 25
x2	6	8	10	36 + 64 = 100
x3	9	12	15	81 + 144 = 225
x4	12	16	20	144 + 256 = 400

E. Discussing new concepts and practicing new skills # 2

The teacher will elaborate more on the Pythagorean theorem using the following example.



Given: Right Triangle ABC with leg lengths a and b and hypotenuse length c.

Prove : $a^2 + b^2 = c^2$

Statements	Reasons
1.Draw altitude CP to the hypotenuse	1. Definition of an altitude.
2. $\frac{x}{a} = \frac{a}{c}$; $\frac{y}{b} = \frac{b}{c}$	2. Leg rule in the similarity on a right triangle theorem
3. $cx = a^2$; $cy = b^2$	3. Fundamental law of proportion
4.$cx + cy = a^2 + b^2$	4. Addition property of equality.
5. $c(x + y) = a^2 + b^2$	5. Distributive property of multiplication over addition
6. $c = x + y$	6. Segment addition postulate
7. $a^2 + b^2 = c^2$	7. Substitution

F. Developing mastery (Leads to formative assessment3)

In groups of three, the teacher will ask the students to answer part A found on page 391 of the LM.

Answer Key

A	B	C	D	E
$f^2+g^2=h^2$ $3^2+g^2=5^2$ $9+g^2=25$ $g^2=25-9$ $g^2=16$ $g=4$	$f^2+g^2=h^2$ $5^2+12^2=h^2$ $25+144=h^2$ $g^2=169$ $g=13$	$f^2+g^2=h^2$ $f^2+24^2=25^2$ $f^2+576=625$ $f^2=625-576$ $f^2=49$ $f=7$	$f^2+g^2=h^2$ $8^2+15^2=h^2$ $64+225=h^2$ $289=h^2$ $h=17$	$f^2+g^2=h^2$ $9^2+g^2=41^2$ $81+g^2=1681$ $g^2=1681-81$ $g^2=1600$ $g^2=16(100)$ $g=4(10)=40$

G. Finding practical applications of concepts and skills in daily living

H. Making generalizations and

The teacher summarizes the mathematical skills or principles used to prove Pythagorean Theorem through question like:

1. What is the relationship among the sides of a right triangle?

abstractions about the lesson	Possible Answer: 1. The relationship among the sides of a right triangle as expressed in the Pythagorean Theorem is often used to calculate distance in real-life problems.
I. Evaluating Learning	The teacher will let the students answer individually the formative assessment that can be found on page 391, part B, numbers 1 and 2 only of the LM. Answer Key: 1. 21.26inches 2. 19.6ft.
J. Additional activities or remediation	
K. REMARKS	
L. REFLECTION	
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 remediation lesson work? No. of learners who have caught up with the lesson.	
D. No. of learner 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 of localized materials did I wish to share with other reachers.	

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