	GRADES 1 to 12	School	Grade Level	9
	DAILY LESSON LOG	Teacher	Learning Area	Mathematics 9
TO BOOK AND THE	Mark to Turk	Teaching Dates and Time	Quarter	FOURTH

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
I. OBJECTIVES	a. Illustrate the law of cosine.b. Solve problems involving oblique triangles.c. Show mastery in applying the laws of cosine in solving problems about oblique triangles.				
A. Content Standards	The learner demonstrates understanding of the basic concepts of trigonometry.				
B. Performance Standards	The learner is able to apply the concepts of trigonometric ratios to formulate and solve real-life problems with precision and accuracy.				
C. Learning Competencies/ Objectives Write the LC code for each	The learner solves problems involving oblique triangles. (M9GE-IVh-j-1)				
a. CONTENT	Oblique Triangles (Law of Cosine)				
b. LEARNING RESOURCES					

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A. Re	eferences			
1. Te	eacher's Guide			
pa	ages			
2. Le	earner's Materials	9 Learning Materials pp. 477 -		
pa	ages	496		
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3. Te	extbook pages			
4. Ad	dditional			
Ma	laterials from	https://www.mathsisfun.com		
Le	earning Resource	/algebra/trig-cosine-law.html		
	∠R) portal	/aigebra/trig-cosine-iaw.ntmi		
	, F			
A. Ot	ther Learning	oblique triangles (pictures),		
	esources	LCD, activity sheets		
		•		
c. PROC	CEDURES			
A. Re	eviewing previous	I. Look around the classroom.		
les	esson or	Can you see things in the		
pr	resenting the new	shape of oblique triangles?		
	esson	List down at least five		
	.55011	things you see around that		
		may not be considered as		
		right triangles. These are		
		oblique triangles.		
		Take a second look at the		
		things you have listed and		
		find out what common		
		right triangles. These are oblique triangles.Take a second look at the things you have listed and		

	,	 	
	characteristic these		
	triangles have.		
	If you are asked to classify		
	the things on your list into		
	two, how would you do it?		
	What is your basis for		
	classifying them as such?		
	Can you now define an		
	oblique triangle? Give your		
	definition of an oblique		
	triangle based on what you		
	have observed.		
	Triangle 1 Inangle 2 Triangle 3		
	Triangle 4 Triangle 5 Triangle 6		
B. Establishing a	at the triangles below		
purpose for the	□ What do you notice		
lesson	about each of the given		
	triangles?		
	□ If you are asked to		
	group the triangles in into two		
	sets, how will you group		
	them? Name them Set A and		
	Set B.		
	□ What is your basis for		
	grouping them that way?		
	□ Examine closely the		
	triangles in Set A. Can you		
	solve the missing parts of the		

	triangles? How about those in		
	Set B? If you can solve the		
	missing parts of these two		
	sets of triangles using the		
	previous concepts you have		
	learned, show us how.		
	·		
C. Presenting	cosine states that the square		
examples/instance	of any side of a triangle is		
s of the new lesson	equal to the sum of the		
	squares of the other two		
	sides minus twice the product		
	of these sides and the cosine		
	of the angle between them.		
	a² + b² – 2ab cos C		
	y applicable if:		
	□ the three sides are		
	known; and		
	□ the two sides and its		
	included angle are known.		
	le 1. Solve for the missing		
	parts of ∆ABC below.		
	ո։ two sides and an angle		
	opposite of these sides		
	a = 10 ; c = 19 ;		
	∠ <i>C</i> = 120°		
	c=19 B		
	A		
	b a=10		
	C		

	Example 2:		
	Given: three sides a = 10; b = 15; c = 20 Find the measurement of		
	b=15 $c=20$ $\angle A$, $\angle B$, and $\angle C$.		
D. Discussing new concepts and practicing new skills #1	a. What are your thoughts about the applications of law of cosines? b. Are the given illustrations helpful? How it helps to solve the problem easier? c. Do you have other way/s to solve these problems? If so, share it to the class.		
E. Discussing new concepts and practicing new skills #2	How long is side "c" ? 11		

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F. Developing mastery (Leads to Formative Assessment	Find the measurement of ∠A, ∠B, and ∠C.			
3)	6 8 7 В			
G. Finding practical applications of concepts and skills in daily living	Group Activity • Each group were given an oblique triangle. • Create a situation or a problem where the given oblique triangle can be applied and write it on the manila paper given to each group. • The first group who can post their work on the board will become the first group to present and they will rocewe an additional points. • After three mirates each group will demonstrate or act the situation or problem. • Show the solution to solve the formulated problem.			
H. Making generalizations and abstractions about the lesson	The law of cosines states that the square of the length of one side is equal to the sum of the squares of the other two sides minus the product of twice the two sides and the cosine of the angle between them.			
I. Evaluating learning	s handheld computer can send and receive e – mails if it is within 40miles of a transmission tower. On a trip Maine passed the transmission tower on			

	Highway 7 for 32 miles, and turns 97° onto Coastal road and drive another 19 miles.		
	Is Maine close enough to the transmission tower to be able to send and receive e — mails? Explain your reasoning. e is within range of the tower, how much farther can she drive on Coastal road before she is out of range? If she is out of range and drive back toward Highway 7, how far will she travels before she is		
	back in range?		
J. Additional activities for application or remediation	Solve the following problems. A triangular lot sits at the corner of two streets that intersect at an angle of 58 degrees. One street side of the lot is 32 m and the other is 40 m. How long is the back lot (the third side) to the nearest meter?		

	C 32 m 40 m		
V. REMARKS			

REFLECTION]	
A. No. of learners who earned 80% in the evaluation		
B. No. of learners who require additional activities for remediation		
C. Did the remedial lessons work? No. of learners who have		

caught up in 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 used/discover which I wish to share with other teachers?			