DAILY LESSON LOG OF M9GE-IVe-1 (DAY ONE)

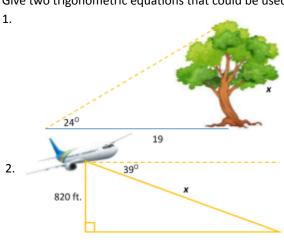
School		Grade Level	9
Teacher		Learning Area	MATHEMATICS
Teaching Date and Time		Quarter	Fourth (4 th)
I. OBJECTIVES	necessary procedures must be follo may be done for developing conte Assessment Strategies. Valuing obj	owed and if needed, additional less ent knowledge and competencies. jectives support the learning of co	am standards. To meet the objectives, cons, exercises and remedial activities. These are assessed using Formative ontent and competencies and enable objectives shall be derived from the
A. Content Standards	The learner demonstrates un	nderstanding of the basic co	oncepts of trigonometry.
B. Performance Standards	The learner is able to apply t		ric ratios to formulate and
C. Learning Competencies/ Objectives	right triangles. (M9GE–IVe– 1. Identify the trigo problems. 2. Solve for the meas Use trigonometric r 3. Shows interest in de	e trigonometric ratios to solve-1) nometric ratios used to sures of the unknown side ratios. oing the tasks.	ve real-life problems involving solve real-life situations or s and angles of right triangle
II. CONTENT	Solving Real-life Problems U	sing Trigonometric Ratios o	n a Right Triangles.
III. LEARNING			
RESOURCES A. References			
Teacher's Guide pages	Pages 292-297		
2. Learner's Materials			
pages	Pages 460-464		
3. Textbook pages	Empowering through Math I Grade 9 Mathematics by G.		
4. Additional Materials from Learning Resource (LR) portal			
B. Other Learning	Activity sheets for depender	nt learning and Worksheets	for independent learning,
Resources IV. PROCEDURES	pupils/students will learn well. Als which you can infer from formati pupils/students with multiple way	ways be guided by demonstration ve assessment activities. Sustain is to learn new things, practice t bout what they learned in relation	ne activities appropriately so that in of learning by the pupils/ students learning systematically by providing the learning, question their learning to their life experiences and previous
A. Review previous lesson or presenting the new lesson	activity below:	etric equations that could be a significant to the state of the state	airs, answer the following e used to solve for x in each

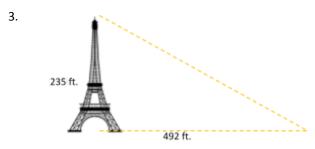
B. Establishing a purpose for the lesson		 tan 24° = x/19 and cot cot 24° = 19/x sin sin 39° = 820/x and csc csc 39° = x/820 tan x° = 235/492 and cot cot x° = 492/235 Let the students realize that using the six trigonometric ratios is important skill in solving a real-life problems. The teacher lets the students, in groups of three, do the activity below: Illustrate and solve the following problem using the template below: A ramp from the ground level to the entrance of a restaurant is to be built from the entrance is 1.75 feet above the ground level and the angle of inclination from the base of the ramp to the top is 18°, find the length of the ramp. 	
		Draw the diagram. What is/are given? What is to be determined? Formula used Solution	
c.	Presenting examples/ instances of the new lesson	Draw the diagram.	
		What is/are given? What is to be determined? Given: $18^0 = \text{ the angle of inclination from the base of the ramp to the top}$ 1.75 feet = distance of the restaurant's entrance to the ground level. Unknown: $X = \text{ the length of the ramp}$	
		Formula used $ \begin{aligned} & \text{Sin } \theta = \frac{opposite}{hypotenuse} \\ & \text{Sin } \theta = \frac{opposite}{hypotenuse} \\ & \text{Sin } 18^0 = \frac{1.75}{x} \\ & x = \frac{1.75}{\sin 10^0} \end{aligned} $ Solution $ \begin{aligned} & x = \frac{1.75}{\sin 10^0} \\ & x = 5.6631 feet \end{aligned} $	
D.	Discussing new concepts and practicing new skills #1	 The teacher discusses with the students the process of arriving at the answer of each item using the guide questions. Furthermore, the teacher asks the students about the mathematical skills or principles that they used in solving real-life problem involving right triangle. 	
E.	Discussing new concepts and practicing new skills #2	 Working in pairs, the teacher provides another activity using the trigonometric ratios to solve real-life problem involving right triangle. Illustrate and solve the following problem below: A guy-wire for a tower is 12.5 feet long and makes a 51⁰ angle with the ground. How far is the base of the tower from the state anchoring the wire? Inswer Key: adjacent hypotenuse 	
		and the second s	

	0
	$\cos\cos 51^0 = \frac{x}{12.5}$ $51^0 = x$
	= x
	 The teacher gives another activity for the students to perform individually. This will allow the students to demonstrate learning.
	Read, analyze, illustrate and solve the problem below. Show your solution.
	1. A ladder is leaning on the wall of a building makes an angle 60^{0} from the ground. If the distance of the foot of a ladder to the base of a building is 3 m. How long is the ladder leaning on the wall?
F. Developing mastery (leads to formative	Answer Key: \[\text{\alpha} = \frac{adjacent}{\text{\alpha}} \]
assessment 3)	$\theta = \frac{adjacent}{hypotenuse}$ $60^{0} = \frac{3}{x}$
	$=\frac{3}{\cos 60^{\circ}}$
	= 6
	Therefore, the length of the ladder leaning on the wall of a building is 6 meters.
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 or principles used to solve real-life problem involving right triangle asking the question below: What mathematical principles or skills did you use in solving the distance or length of an object and the angle formed from the two given objects?
	By using the six trigonometric ratios. • Answers must be drawn from the students.
	The teacher lets the students answer individually the formative assessment.
	Read, analyze, illustrate and solve the problem below. Show your solution.
	Problem:
	1. A Jose Rizal statue stands on a 2.8m high podium. At a point 10m away from the base of the podium makes an angle 43^{0} to the top of the statue. How
	high is the statue?
	Answer Key:
I. Evaluating Learning	Let \mathbf{x} be the total length of the statue and the podium. $\theta = \frac{oposite}{adjacent}$
	$43^0 = \frac{x}{10}$
	43^{0}) = x 9.3 = x 10 m
	So, The length of the statue + the podium = 9.3 m The length of the statue + 2.8 = 9.3 The length of the statue = 9.3 - 2.8 The length of the statue = 6.5
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	

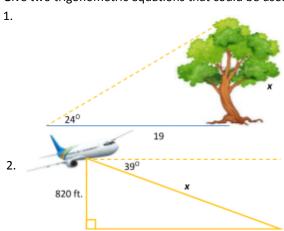
B.	No. of learners who require additional activities for remediation who scored below 80%	
C.	Did the remedial lesson work? No. of learners who have caught up with the lesson.	
D.	No. of learners who continue to require remediation	
E.	Which of my teaching strategies worked well? Why did these work?	
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	

Give two trigonometric equations that could be used to solve for \boldsymbol{x} in each figure.

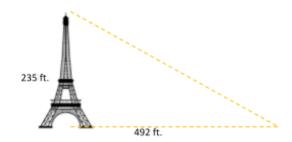




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3.



Illustrate and solve the following problem using the template below:

A ramp from the ground level to the entrance of a restaurant is to be built. If the entrance is 1.75 feet above the ground level and the angle of inclination from the base of the ramp to the top is 18^{0} , find the length of the ramp.

Draw the diagram.	
What is/are given? What is to be determined?	
Formula used	
Solution	

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