

Description:

- Using Law of Sines and Cosines
 - write your own word problem (do not copy one from the internet or your textbook, use your imagination!!)
 - set up the proper equations that represent the problem you have written
 - solve the problem correctly and interpret the answer in the context of the problem
- Make a model illustrating your problem

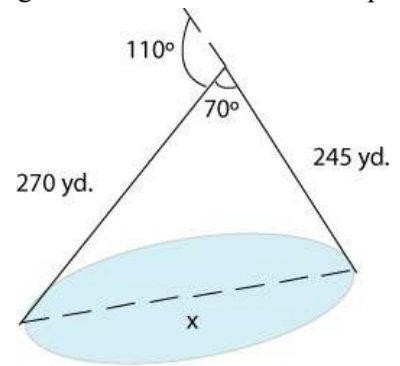
Use the scoring rubric (attached) as a guide to designing your project to get the highest possible score.

THE RUBRIC MUST BE SUBMITTED WITH YOUR PROJECT!!!!

Sample problems:

The wind was blowing a tree really hard so that it was leaning over at an angle of 4 degrees from the vertical. At a point 35 meters from the tree, the angle of elevation to the top of the tree is 23 degrees. What is the height of the tree?

To approximate the length of a lake, a surveyor starts at one end of the lake and walks 245 yards. He then turns 110° and walks 270 yards until he arrives at the other end of the lake. Approximately how long is the lake?



Ideas for models include (but are not limited to)

- Poster board
- Comic strip (large enough for a classroom display)
- Flip book
- 3-D Model

Use your imagination to create a project that will make your teacher say, “WOW! That’s really cool!”

Grading:

This project is required as a final assessment of applying the skills you have learned using law of sines and law of cosines. This project will be graded using the rubric provided.

Due Date:

All projects must be submitted by **Friday November 13, 2015 by 3:25 pm** on the school hallway clock. Any projects submitted after this time will receive a penalty of 10 points per school day.

Bonus: Problems may earn up to 5% bonus for early submission based on the following:

Monday or Tuesday November 9 - 10 = 5%

Wednesday November 11 = 4%

Thursday, November 12 = 3%

Student Name _____ Date submitted _____

Description	0 points	1 point	3 points	5 points	Points earned
How complex is the problem?	No problem provided.	Problem uses Pythagorean Theorem but not law of sines or cosines.	Problem uses laws of sines or cosines but on a right triangle (not oblique).	Problem uses law of sines or cosines to solve for an angle or side with no right triangles.	
Did you set up and solve the equation correctly?	No equation provided.	Equation has several errors in the set up or solution.	Equation has one error in the set up or solution.	Equation is set up and solved correctly.	
Did you interpret the answer correctly and uses correct grammar.	No interpretation provided.	The grammar is correct, but the interpretation is incorrect.	The answer is interpreted correctly, but there are mistakes in the grammar.	The answer is interpreted correctly and uses correct grammar.	
How visually pleasing is your model/ representation of the problem?	No model provided.	Includes little detail and/or color, indicating a minimal amount of time and effort.	Includes some detail and/or color, indicating a moderate amount of time and effort.	Includes intricate detail and/or color, indicating a large amount of time and effort.	
How is your problem prepared?	No problem provided.	Problem has more than two grammar mistakes.	Problem has one or two grammar mistakes.	Problem has no grammar mistakes.	
Does the problem make sense?	No problem provided.	Problem has several elements that do not make sense.	Problem has one element that does not make sense.	Problem makes complete sense.	

Total points earned from the rubric _____

Total points possible 30

Percentage score _____

Early submission bonus % _____

Deduction for late submission _____

Final project score _____

THIS RUBRIC MUST BE SUBMITTED WITH YOUR PROJECT!!!!

Projects submitted without rubrics will be considered an incomplete submission.