

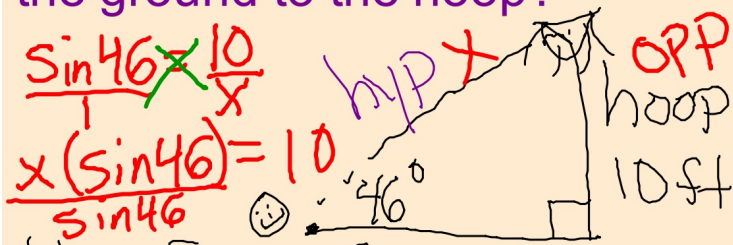
## Welcome Back MYP Math 9!

	Assignment Effort Grade (Circle One)	Comments (What was interesting or challenging?)
<b>Monday</b> Date: <b>12/4</b> Topic: <b>No homework - Quiz 3.2 on Friday</b>	0   1   2	
<b>Tuesday</b> Date: <b>12/5</b> Topic: <b>"Cat in a tree" Real-life problem</b>	0   1   2	
<b>Wednesday</b> Date: _____ Topic: _____	0   1   2	
<b>Thursday</b> Date: _____ Topic: _____	0   1   2	
<b>Friday</b> Date: _____ Topic: _____	0   1   2	

### Warm-up:

A basketball hoop is about 10 feet tall. Ernest lays on the ground and shoots the ball directly to the hoop at a  $46^\circ$  angle.

How far did the ball travel from the ground to the hoop?



$$\frac{\sin 46^\circ \times 10}{\sin 46^\circ} = x$$
$$x(\sin 46^\circ) = 10$$



How far is Ernest from hoop (base)

**What other questions could be answered from the scenario??**

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How far did the ball travel from the ground to the hoop?

$$\sin(46) = \frac{10}{D}$$

$$D(\sin 46^\circ) = 10$$

$$D = \frac{10}{\sin(46)} \approx 13.9 \text{ feet}$$

**What other questions could be answered from the scenario??**



# "Create Your Own Application"

Due: Wednesday Dec. 6th

Criterion D: Real Life

## Create Your Own Real World Application

1. Create a scenario involving trigonometry. Include a diagram of the scenario.
2. Create questions to solve... be creative!
  - a. Solve for an angle and side length (*Right Triangle Trigonometric Ratios or Sine Rule*)
  - b. Reflection of methods used. (*Why can you use them?*)
  - c. Reflection of solution. (*Does it make sense? Is it accurate?*)
3. Create a key/solution to your problem
4. Self-Assess and defend your score

## *In short...*

1. Create Triangle (in real life).
2. Write Questions.
3. Write Solutions to your questions!  
(Use Exemplar & Crit. D Rubric to help you!)

When Done: Self Assess

7	<ul style="list-style-type: none"> <li>i. identify the relevant elements of the authentic real-life situation</li> <li>ii. select appropriate mathematical strategies to model the authentic real-life situation</li> </ul>	
8	<ul style="list-style-type: none"> <li>iii. Apply the selected mathematical strategies to reach a correct solution to the authentic real-life situation</li> <li>iv. justify the degree of accuracy of the solution</li> <li>v. justify whether the solution makes sense in the context of the authentic real-life situation.</li> </ul>	<ul style="list-style-type: none"> <li>Math strategies include: <ul style="list-style-type: none"> <li>-Create a scenario</li> <li>-Diagram Included</li> <li>-Write <b>questions</b> from scenario that require the following: <ol style="list-style-type: none"> <li>Solving for unknown angle.</li> <li>Solving for unknown side length.</li> <li>Reflection of method and solution.</li> </ol> </li> </ul> </li> <li>A key (<i>solution</i>) is provided <b>without error</b>.</li> <li>Explanation of why the method of solving works in this situation.</li> <li>Thorough justification of whether your solution is realistic.</li> </ul>

Exercises...

Finish your application!

(Turn in Tomorrow Wed 12/6)