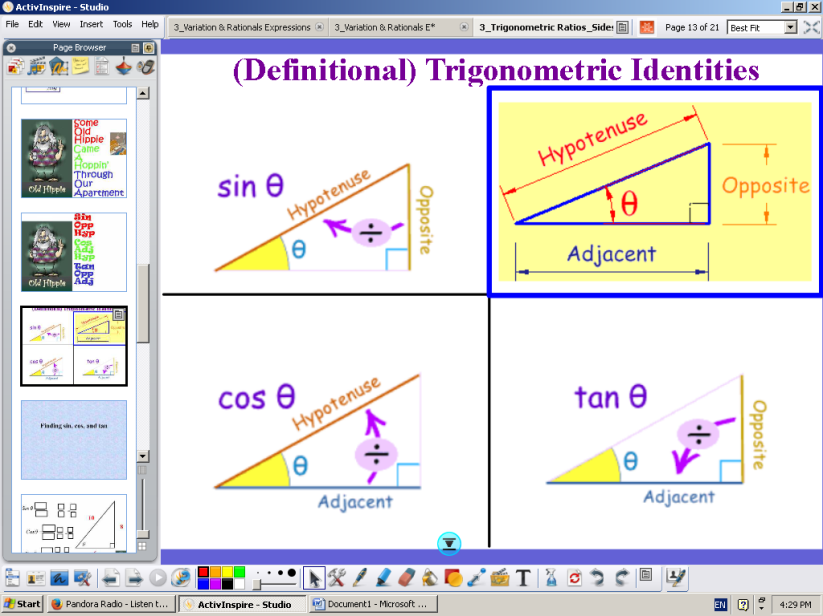
**Unit 6 #2 Trigonometric Ratios – Sides**

|  |  |  |  |
| --- | --- | --- | --- |
| SINE (“sign”)  sin 18o =  sin 22o =  sin 65o =  sin 212o = | COSINE (“co-sign”)  cos 18o =  cos 22o =  cos 65o =  cos 212o = | TANGENT (“tan-gent”)  tan 18o =  tan 22o =  tan 65o =  tan 212o = | Ѳ (“theta”)  Represents an \_\_\_\_\_\_\_\_\_ angle  \*If you see this symbol, make sure your calculator is in \_\_\_\_\_\_\_\_\_ mode! |
| Sin Ѳ = -------------- | Cos Ѳ = -------------- | Tan Ѳ = -------------- |  |

**How will we ever remember this??** The Story of SOHCAHTOA and  
This old hippie can help!

**S \_\_\_\_\_\_\_\_\_\_\_ S \_\_\_\_\_\_\_\_\_\_\_**

**O \_\_\_\_\_\_\_\_\_\_\_ O \_\_\_\_\_\_\_\_\_\_\_**

**H \_\_\_\_\_\_\_\_\_\_\_ H \_\_\_\_\_\_\_\_\_\_\_**

**C \_\_\_\_\_\_\_\_\_\_\_ C \_\_\_\_\_\_\_\_\_\_\_**

**A \_\_\_\_\_\_\_\_\_\_\_ A \_\_\_\_\_\_\_\_\_\_\_**

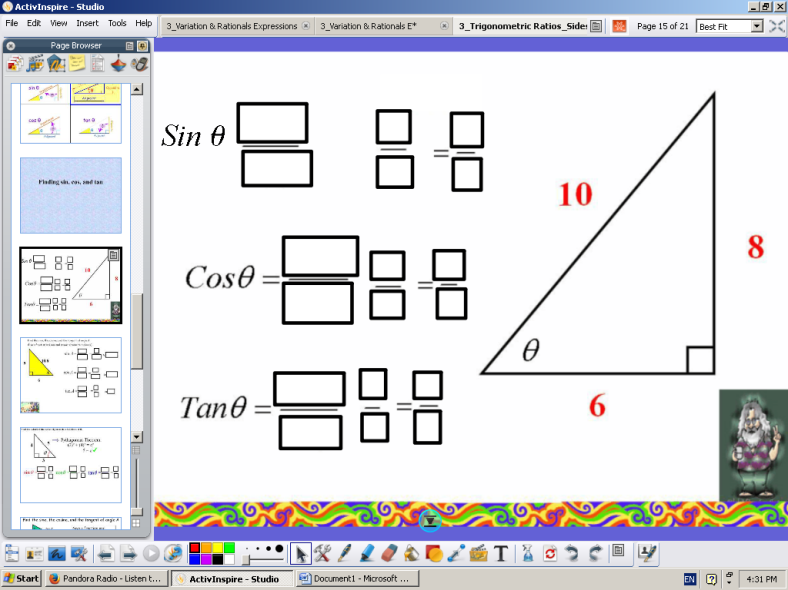
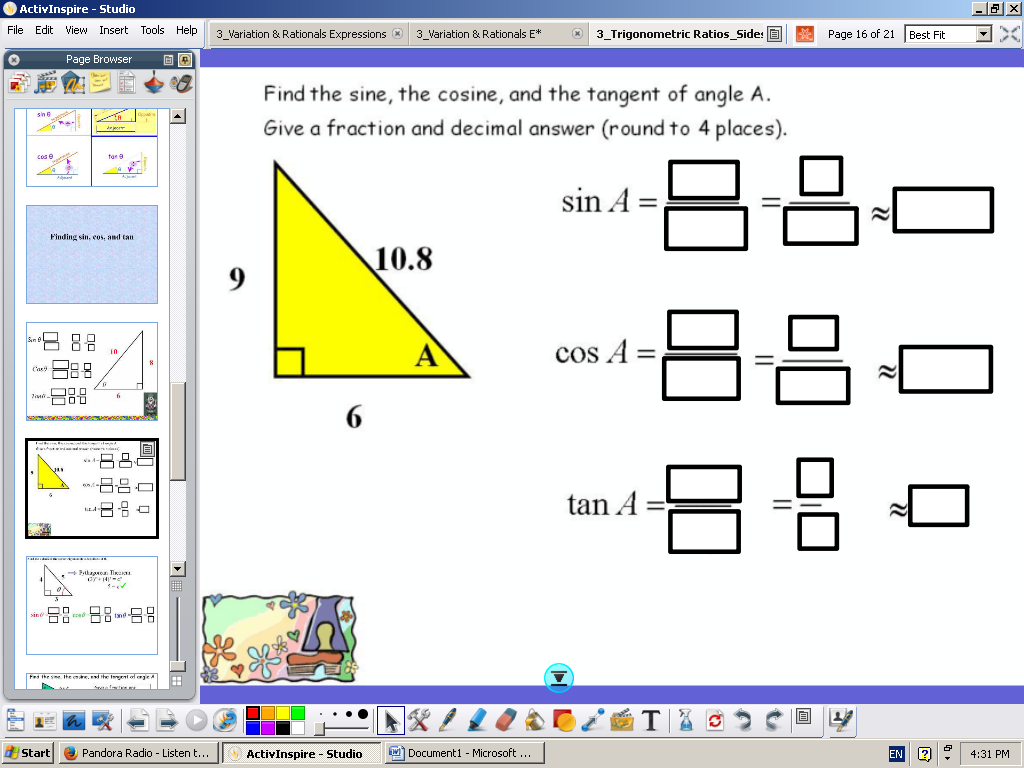
**H \_\_\_\_\_\_\_\_\_\_\_ H \_\_\_\_\_\_\_\_\_\_\_**

**T \_\_\_\_\_\_\_\_\_\_\_ T \_\_\_\_\_\_\_\_\_\_\_**

**O \_\_\_\_\_\_\_\_\_\_\_ O \_\_\_\_\_\_\_\_\_\_\_**

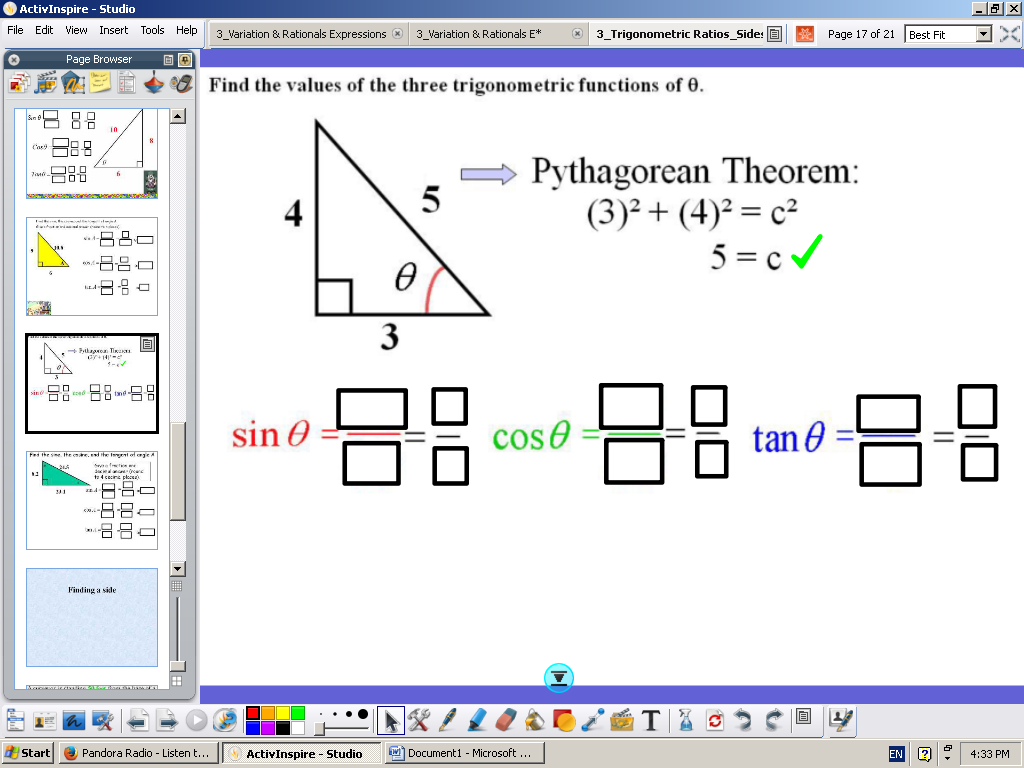
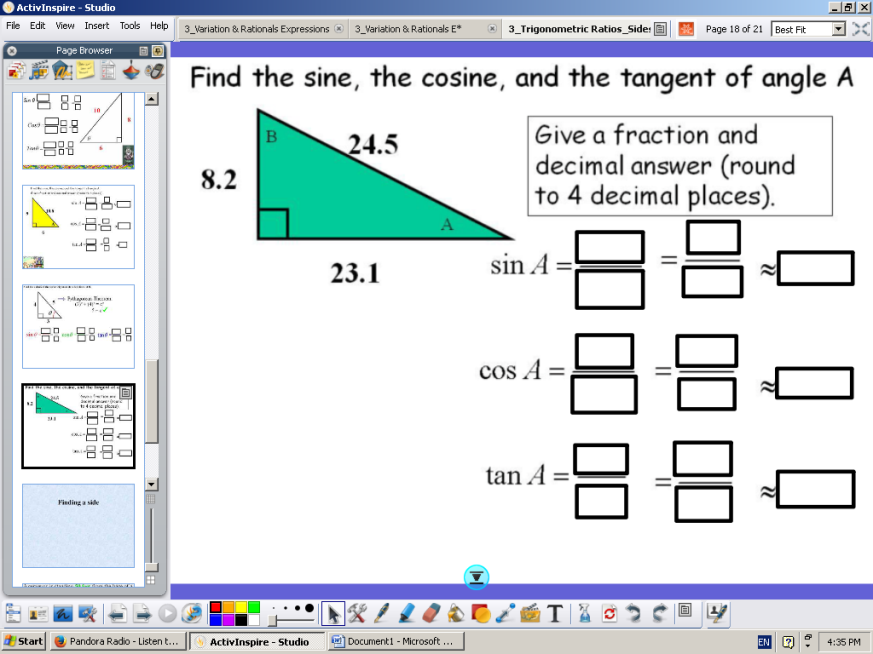
**A \_\_\_\_\_\_\_\_\_\_\_ A \_\_\_\_\_\_\_\_\_\_\_**

**Finding Sin, Cos, & Tan**

Example 1. Find the sin, cos, and tan of θExample 2.Find the sine, cosine, and tangent of angle A.  
 

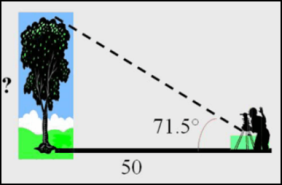
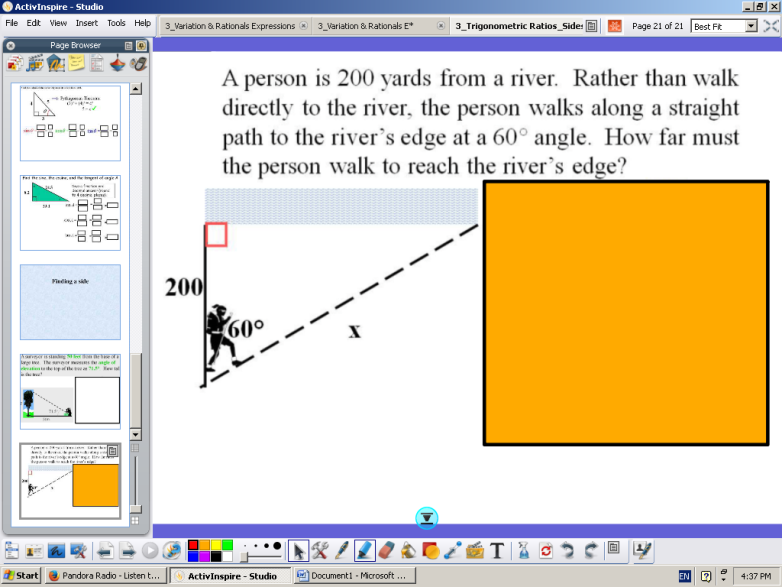
Practice Problem 1. Find the values of the three trigonometric Practice Problem 2. Find the sine, cosine, and tangent of

functions of Ѳ. angle A.

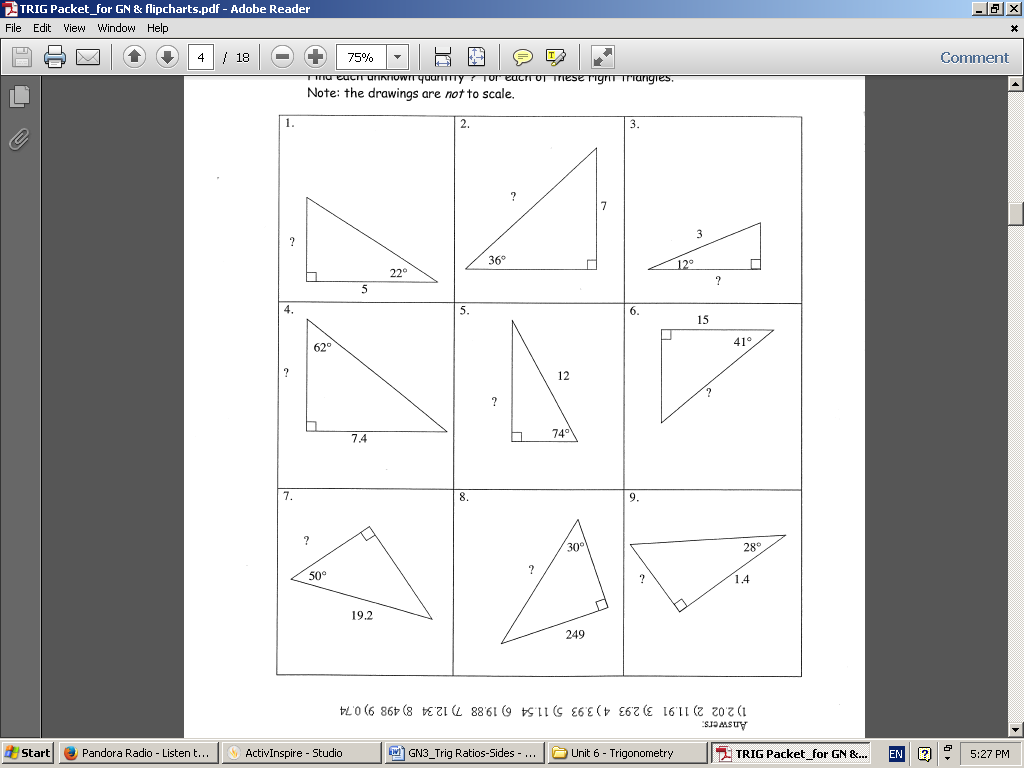
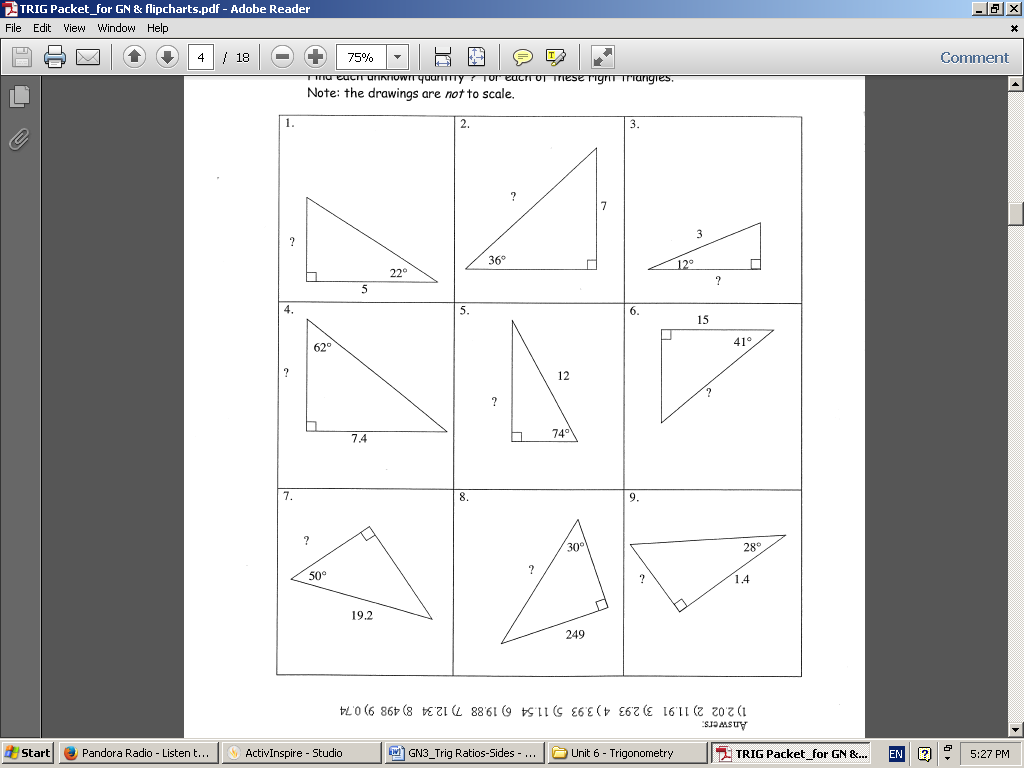
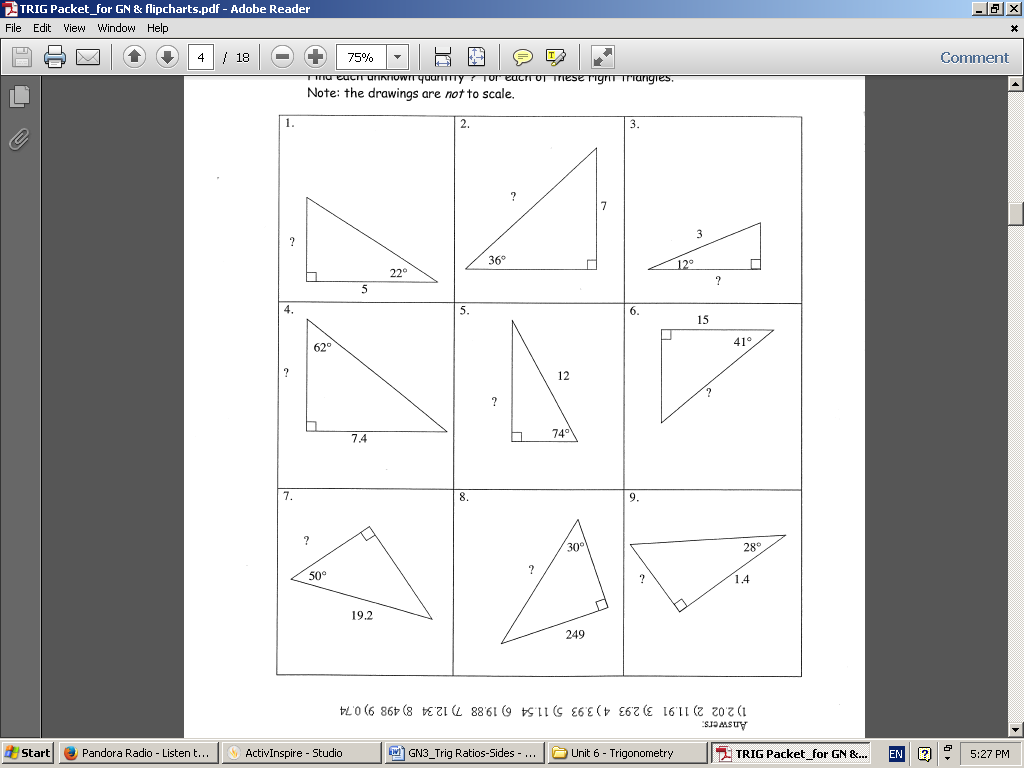
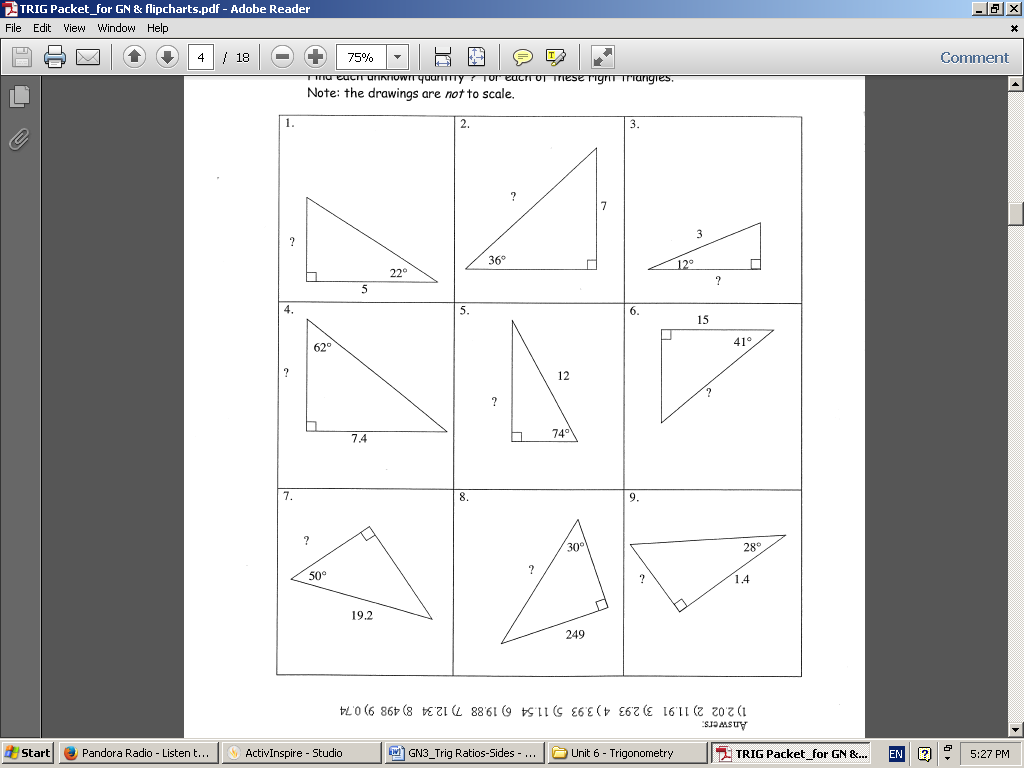
 

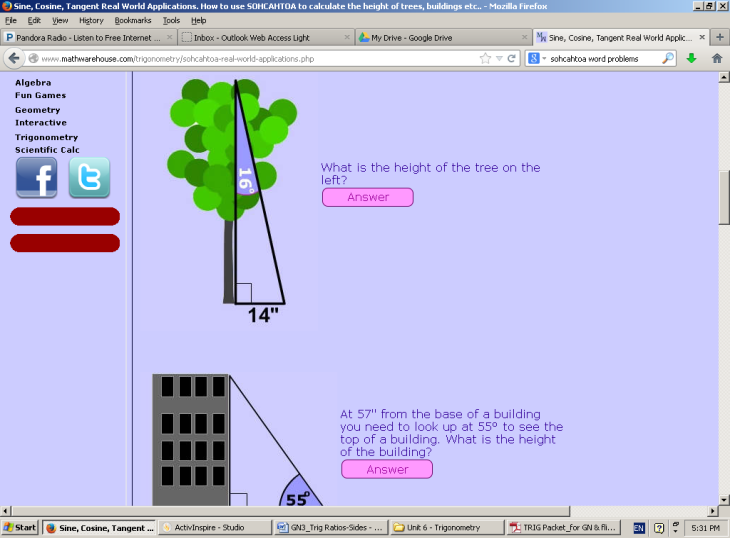
**Finding a side**

1. A surveyor is standing 50 feet from the base of a 2. A person is 200 yards from a river. Rather than walk  
large tree. The surveyor measures the angle of elevation directly to the river, the person walks along a straight  
to the top of the tree as 71.5o. How tall is the tree? path to the river’s edge at a 60o angle. How far must   
 the person walk to reach the river’s edge?

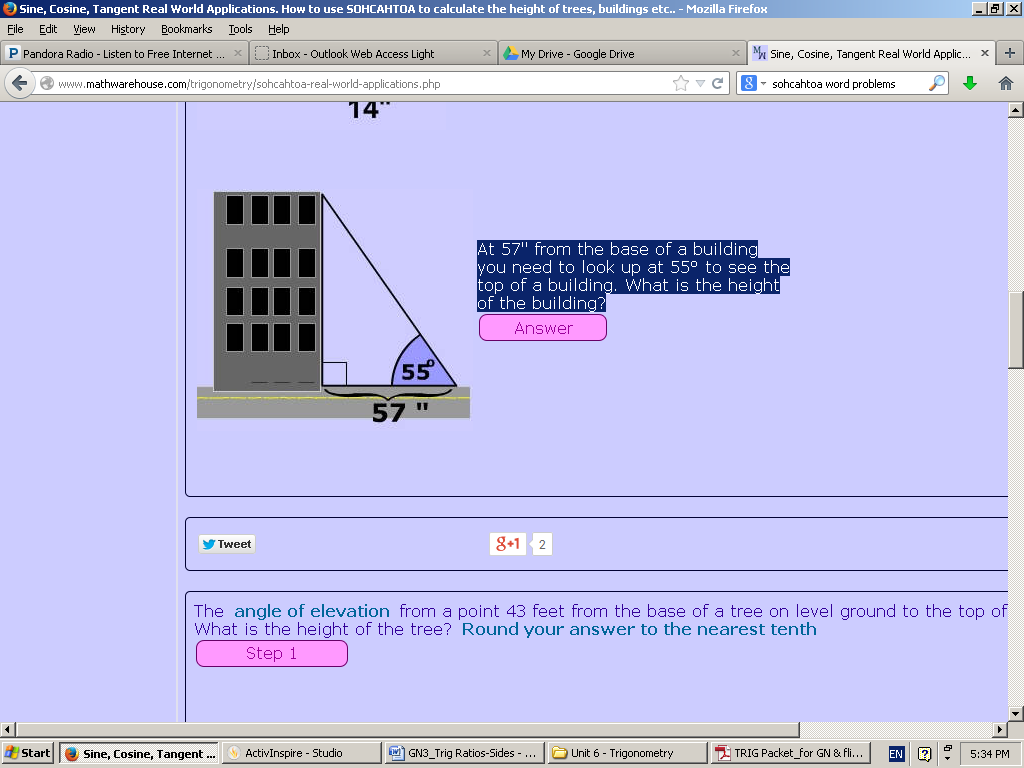
 

**Whiteboard Practice:** Find each unknown angle using a trigonometric ratio.



10. The angle of depression from the top of a tree  
11. At 57" from the base of a building you need to look

is 16o. If the worm is 14 inches from the base up at 55° to see the top of a building. What is the height

 of the tree, how tall is the tree?  
of the building?