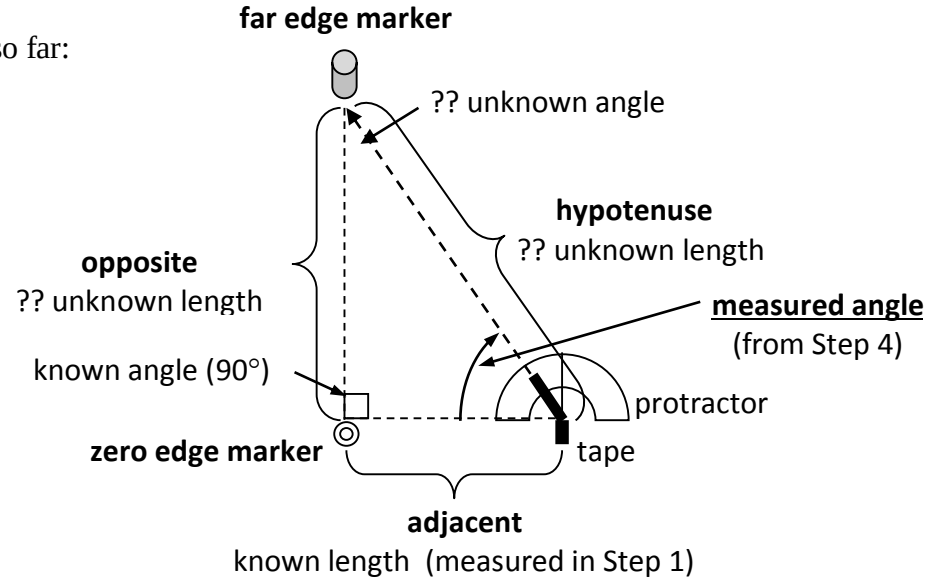
Name: _____ Date: _____

Trig River Worksheet

1. Your distance from the zero edge marker: _____
2. First pencil angle measured on the protractor: _____ (degrees)
3. Second pencil angle measured on the protractor: _____ (degrees)
4. Find the *average* of these two angle measurements: Add them together and divide by 2.
   (first angle) _____ + (second angle) _____ = _____ ÷ 2 = _____ (degrees)

What we know so far:



We know the length of the side *adjacent* to the measured angle, but we do not know the length of the side *opposite* the angle or the length of the *hypotenuse*.

5. Which of the trigonometric functions use the side we know and the side we want to know in our "river"?

   Circle one: **sin = $\frac{\text{opp}}{\text{hyp}}$** **cos= $\frac{\text{adj}}{\text{hyp}}$** **tan= $\frac{\text{opp}}{\text{adj}}$**

6. What is the tan of your measured angle (use a calculator or chart)? _____
7. Now you have one unknown in your equation, and you can solve it!

   length of adjacent side x tan value of your angle = length of opposite side!

   _____ x _____ = ? Write your answer here: _____

Congratulations, you are a math wizard! **Now you know the width of the Trig River!**