**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)

## far edge marker

## zero edge marker

## protractor

## adjacent known length (measured in Step 1)

## measured angle (from Step 4)

## hypotenuse ?? unknown length

## opposite ?? unknown length

## ?? unknown angle

## known angle (90°)

## tape

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*.

1. Which of the trigonometric functions use the side we know and the side we want to know in our “river”?

Circle one: **sin = opp cos= adj tan= opp**

**hyp hyp adj**

1. What is the tan of your measured angle (use a calculator or chart)? \_\_\_\_\_\_\_\_\_
2. 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!**