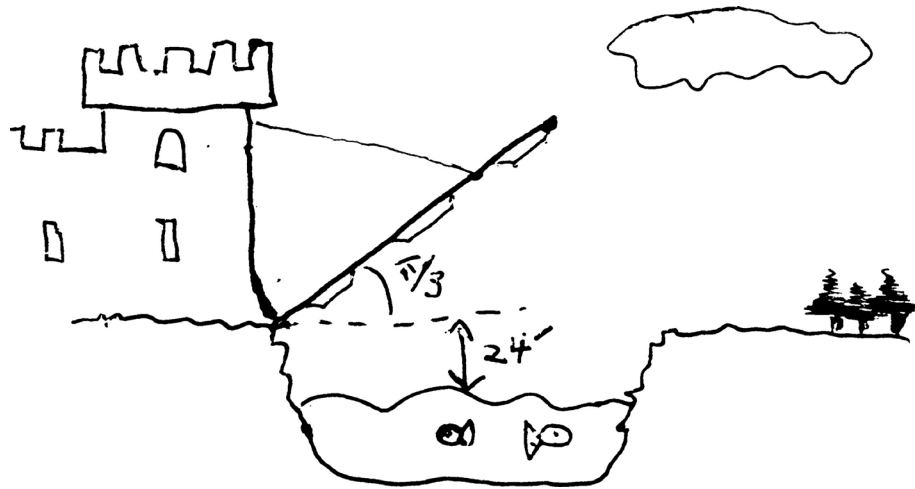


**Calculus I**  
Weekly Project

Name : \_\_\_\_\_

The 60-foot drawbridge to your castle is 24 feet above water level when open. When closed, the bridge makes an angle of  $\pi/3$  with the horizontal. The picture below depicts the bridge as closed.

- 1) How high is the tip of the bridge above the water when it is closed?
- 2) How far is the top of the bridge away from the opposite bank of your moat when it is closed?



This assignment should be written on the back of this page or on a separate sheet of paper. This will be due by the end of the school day on Friday, September 6<sup>th</sup>.

This assignment will count as 5pts to the Quiz category.