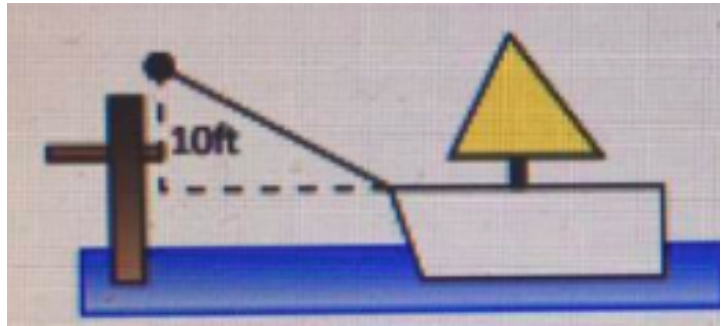


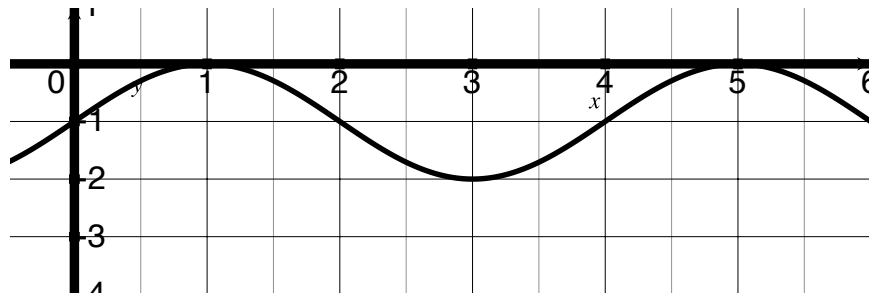
Quiz 4

Show *all* your work. Reasonable supporting work must be shown to earn credit. There are *two* sides to this quiz.

1. [2] (§1.1 #116) A cable is attached to the bow of a sailboat that is initially 24 feet from the dock. The rope is drawn in over a pulley 10 feet higher than the bow at a rate of 2 feet per second. Find a function that gives the distance of the boat to the dock after t seconds.



2. [3] (WedbHW11 #21) Below is the graph of the sine function that has been horizontally stretched and vertically shifted. Find the equation for the graph.



3. [2] Find:

(a) $\sin\left(\frac{\pi}{2}\right)$

(b) $\tan\left(\frac{-3\pi}{4}\right)$

4. [3] (Circles & Angles Activity #4) Find the point(s) that are both on the unit circle and on the side of an equilateral triangle as shown below.

