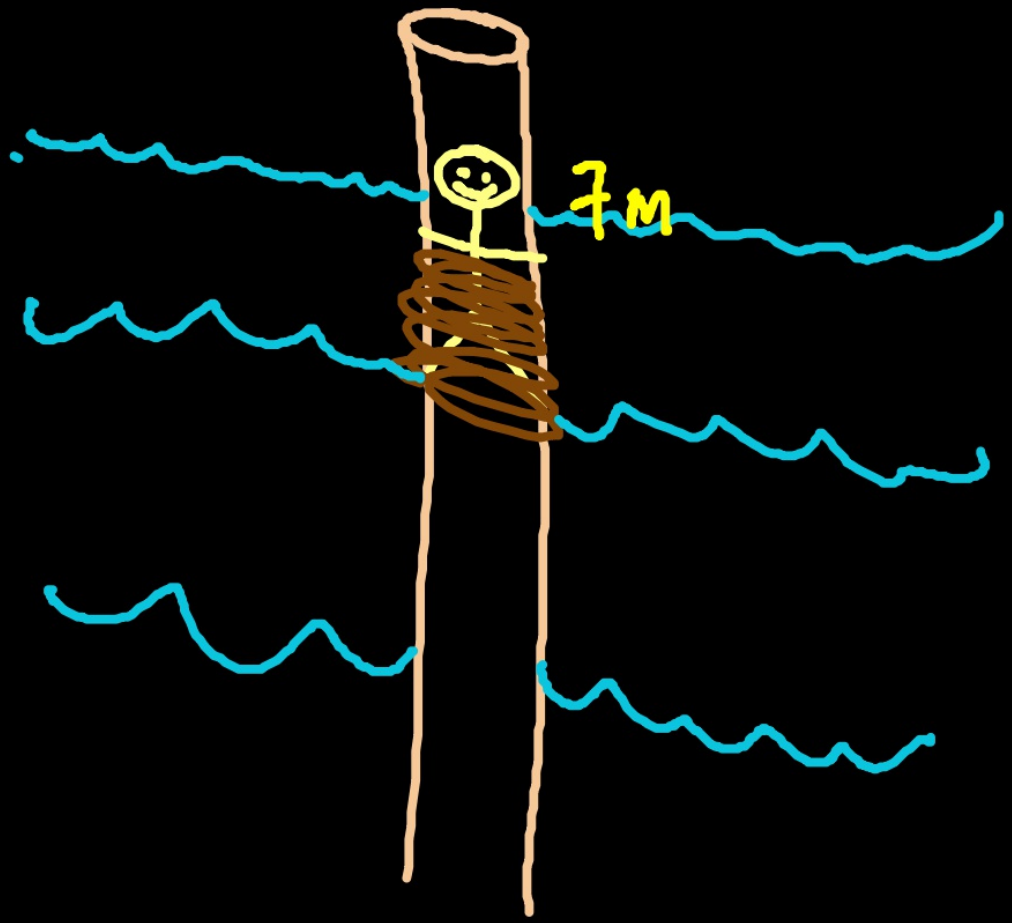
Do you enjoy the ocean?



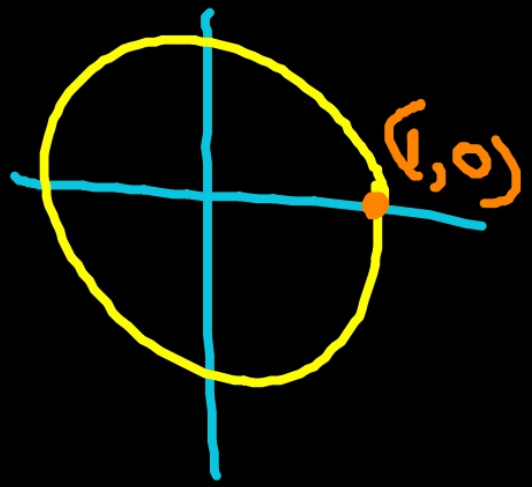
Today's learning objective:

By the end of class, I will be able to solve and graph trig functions to find the solutions of real world problems.

A tide can be modeled by the function:

$h(t) = 6 \cos 2\pi/12.2\ (t - 4) + 8$

where "h" is the height of the water in meters, and "t" is the number of hours past midnight.



$h(4) = 14$

$(4, 14)$

A tide can be modeled by the function:

$h(t) = 6 \cos 2\pi/12.2\ (t - 4) + 8$

where "h" is the height of the water in meters, and "t" is the number of hours past midnight.

$0 = 6\cos(2\pi/12(t-4)) + 1$

What is the first time the height of the water reaches 7 meters after midnight. Example: "9:52am"

$7 = 6\cos(2\pi/12(t-4)) + 8$

$-7 \quad -7$

$x = .62486769$

12:37 am