

Quiz 4-5
Due: 1 October 2024

Answer the questions in the spaces provided. **Show all of your work and circle the answer you would like to have graded for each question.**

Name: _____

1. Determine the amplitude, period, frequency, phase shift, and vertical shift for each of the following functions:

a.) $-3 \csc(\pi + \frac{\pi}{2}x) + 4;$

b.) $\frac{1}{3} \tan(-2x - \frac{\pi}{4}) - 1.$

2. You are visiting a beach with poles sticking out of the water that allow you to measure the water level. At high tide the water level is 30 feet. Exactly 6 hours later it is low tide and the water level is 10 feet. Model the height of the water level in feet as a function of time t in hours starting at ($t = 0$) high tide.

3. Give an equation in the form $A \sin(Bx - C) + D$ for the graph shown below:

