Math 1410: Worksheet 10

October 29, 2021

Name: _____

1. (a) Write a function for the sine wave with amplitude 7 and period 2, with no phase shift from the standard $\sin x$. Sketch a graph of your function, giving one full period.

    (b) Consider the function $g(x) = -2\cos(2x - \pi/4)$. What are the amplitude and period of g? Sketch a graph of g, giving one full period.

2. (a) Consider the function $s(x) = \cot(x)$. Sketch a graph of s giving one full period from asymptote to asymptote.

   (b) Consider the function $t(x) = -\tan(x - \pi/2)$. Sketch a graph of t giving one full period from asymptote to asymptote.

   (c) Compare your two graphs. What does this suggest about $s(x)$ and $t(x)$?