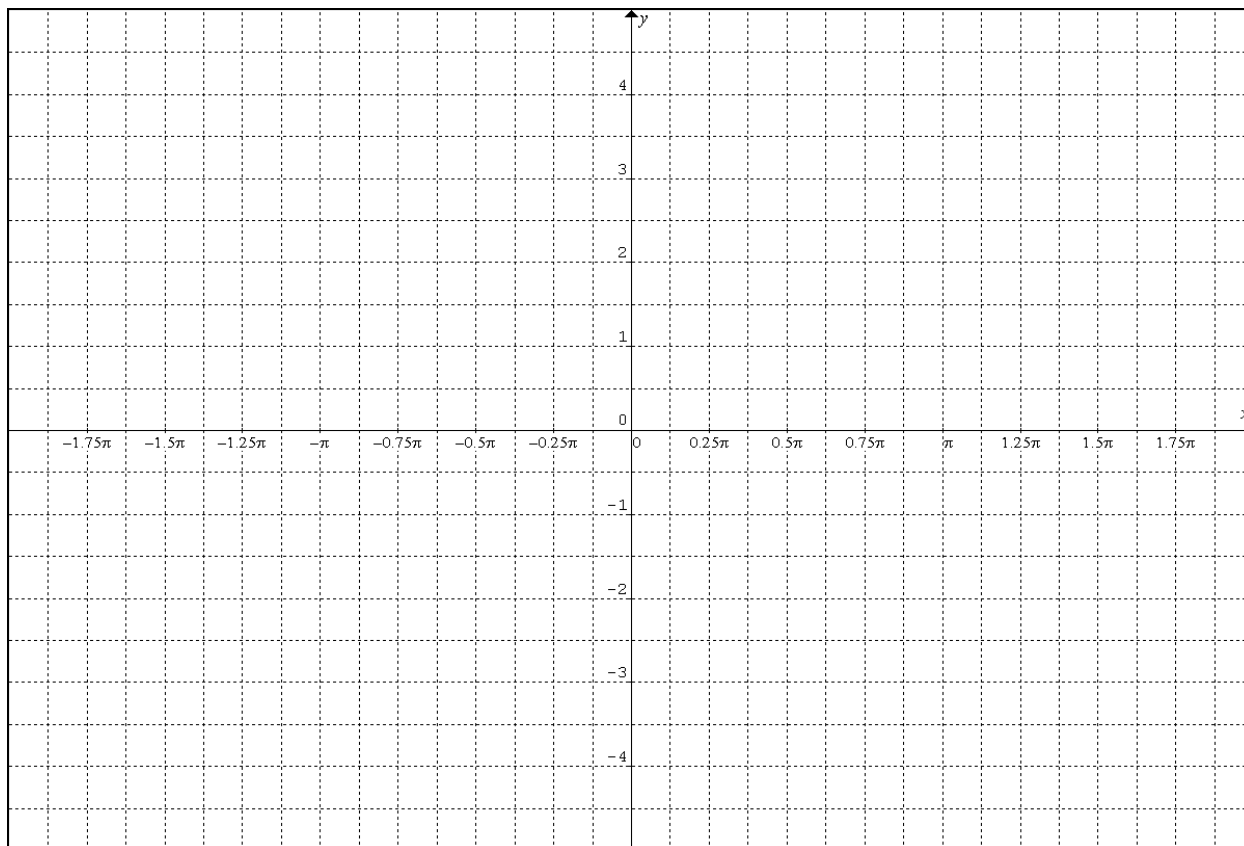
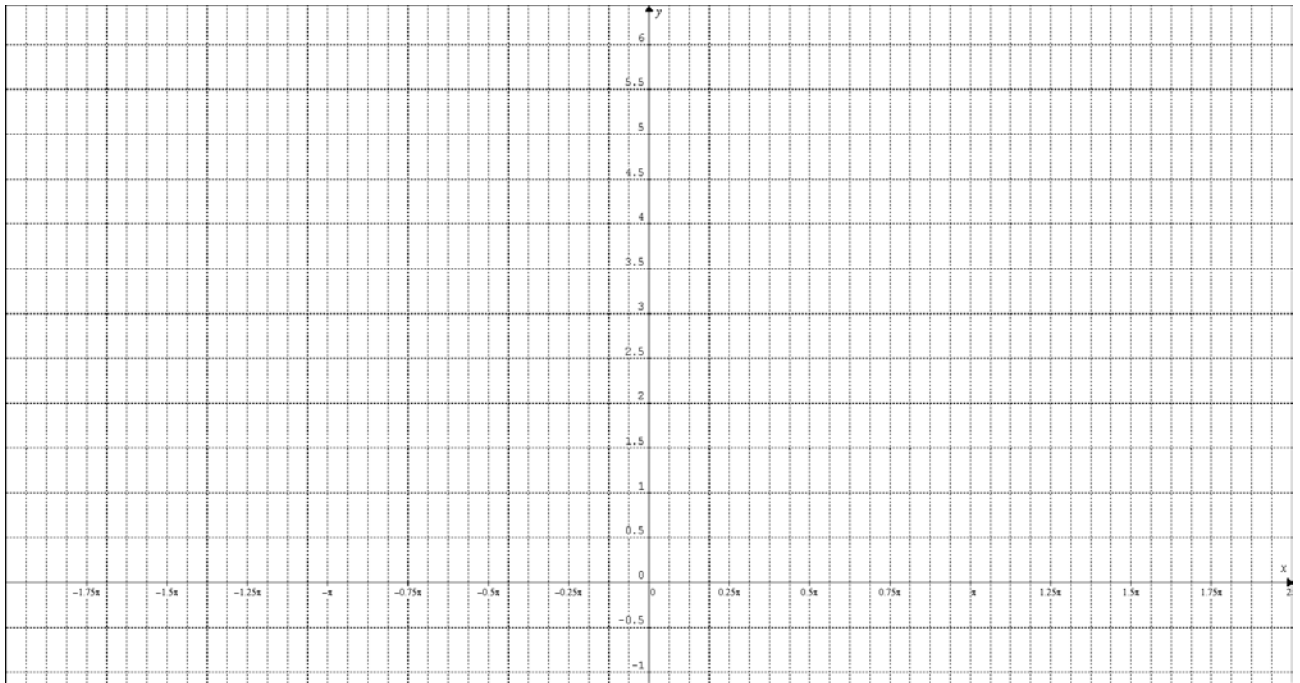


## Week 12 Math 1508 Worksheet

1. [sec 4.5]: Graph two periods of the function  $f(x) = -\frac{1}{2}\sin\left(2x - \frac{\pi}{2}\right) - 4$ . Label all maximum and minimum points as well as x-intercepts. Show all work.



1. [sec 4.]: Graph two periods of the function  $f(x) = \tan\left(x + \frac{\pi}{6}\right) + 3$ . Draw two vertical asymptotes then find two points on either side of the vertical asymptotes. Show all work.



2. [sec 4.7]: Find the **exact** value of the expression without using a calculator.

a.  $\sin\left(\arccos\left(-\frac{2}{3}\right)\right)$

b.  $\sec\left(\arcsin\left(-\frac{\sqrt{2}}{2}\right)\right)$

3. [sec 4.8]: A cellular telephone tower is 80-feet tall. Find the angle of elevation, in degrees, to the top of the tower at the point on level ground 55 feet from its' base.