

Math 190 Lab 2: Sept 20 and 22

Work through the following problems while the instructor and TA circulate. When you have completed the problems (to the satisfaction of the facilitators) you can spend the rest of the lab working on the weeks homework.

Warm up. Compute the following using special triangles and/or the unit circle

- $\sin\left(\frac{3\pi}{4}\right)$
- $\tan\left(\frac{7\pi}{6}\right)$
- $\sin\left(\frac{7\pi}{3}\right)$
- $f(g(\pi))$ where $f(x) = \sqrt{x+1}$ and $g(x) = \cos x$.

Questions:

1. Find all real values of θ satisfying

$$3 \sin(4\theta) - \pi = 0$$

where $0 \leq \theta < 2\pi$.

2. (a) Plot $\cos x$.
(b) Plot $\frac{1}{x}$.
(c) Plot $\cos\left(\frac{1}{x}\right)$
(d) What is the domain of $\cos\left(\frac{1}{x}\right)$