

KEY

Group Work 1.1-1.2
PCHA 2022-23 / Dr. Kessner

Name:

Partner(s):

You can use any class materials and discuss with your classmates, but no calculator and no other online resources.

1. Draw a unit circle and evaluate the following:

a) $\sin \frac{5\pi}{3}$ $-\frac{\sqrt{3}}{2}$

b) $\cos \frac{7\pi}{6}$ $-\frac{\sqrt{3}}{2}$

c) $\csc \frac{5\pi}{6}$ 2

d) $\sec \frac{7\pi}{6}$ $-\frac{2}{\sqrt{3}}$

e) $\tan \frac{3\pi}{4}$ -1

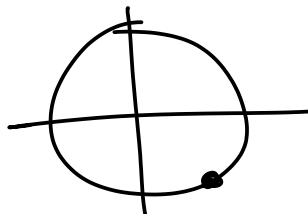
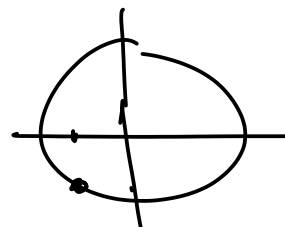
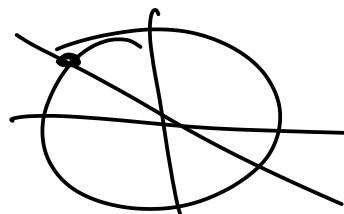
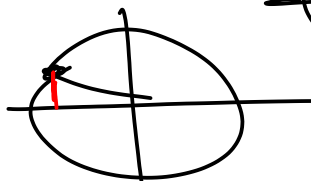
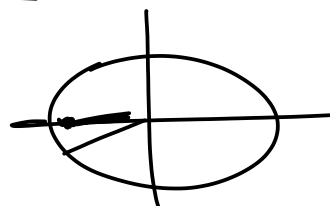
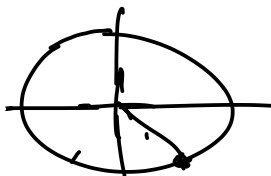
f) $\cot \frac{5\pi}{4}$ 1

g) $\tan \frac{15\pi}{4} = \tan \frac{3\pi}{4} = -1$

h) $\cot \frac{15\pi}{4} = \cot \frac{3\pi}{4} = -1$

i) $\sin \frac{99\pi}{2} = \sin \left(\underbrace{\frac{96\pi}{2}}_{=48\pi} + \frac{3\pi}{2} \right) = \sin \frac{3\pi}{2} = -1$

j) $\sin \frac{97\pi}{2} = \sin \left(\frac{96\pi}{2} + \frac{\pi}{2} \right) = \sin \frac{\pi}{2} = 1$



3. List the transformations required to obtain the function from a standard trig function. Write down the period and amplitude (if applicable). Graph the function. What are the domain and range?

