Answer the questions posed in this assessment. When you are finished, scan or take a picture of your work and turn the file into Canvas.

1. Pick an angle for each of these unit circles. Draw that angle (approximate) and the corresponding right triangle with the sides being the sine and cosine. Make sure you use all four quadrants in your angle selection.



2. Select angles to be drawn on these unit circles. For each positive angle, draw a counterclockwise arc and label it with the selected angle. For the same angle, draw a clockwise arc and label it with the negative angle.



3. Split these two unit circles in half and label each half as either positive or negative as governed by the Sine and Cosine functions.



4. Insert the primary angles for the third quadrant in the column labeled Angle. Then fill out each row with the negative of the angle. Carefully sketch the angle on the unit circle and write the Sin and Cos values of the angle. The third quadrant has five primary angles from 180° to 270°.

Angle	Negative Angle	Unit Circle	Sin	Cos
		\bigcirc		

5. Sketch a Sine Wave and a Cosine Wave on the same graph. Label at least five angles on the sketch.

- 6. Define amplitude, A, and give an example in each of these contexts.
 - a. Definition
 - b. Sound
 - c. Light
 - d. Water
- 7. Define period, T, and give an example in each of these contexts.
 - a. Definition
 - b. Sound
 - c. Light
 - d. Water

8. Define frequency, f, and give an example in each of these contexts.

a. Definition

b. Sound

c. Light

d. Water

9. Define phase, δ , and give an example in each of these contexts.

a. Definition

b. Sound

c. Light

d. Water

Stem 1010

10. Fill out this table of periods and frequencies:

Period, T	Frequency, f	Radian Frequency, ω
	60/Sec	
	50/Sec	
.15 Sec		
.002 Sec		
	1E6/Sec	
25 Sec		
	G/Sec	
		300/Sec
		.05/Sec
120E-3 Sec		
		2500/Sec

- 11. Sketch a Sine Wave with these parameters:
 - a. A = 1.6b. $\omega = 360$ c. $\delta = 0$

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12. Sketch a Sine Wave with these parameters: a. A = 1.6 b. ω = 36 c. δ = 0

13. Sketch a Sine Wave with these parameters: a. A = 0.6 b. ω = 0.125 c. δ = 0