

Trigonometry

Name: _____

Study Guide 10

Class: _____

Due Date: _____

Score: _____

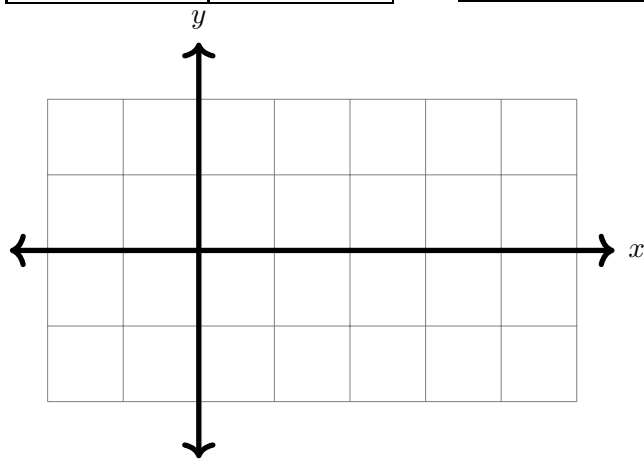
No Work \Leftrightarrow No Points

Use Pencil Only \Leftrightarrow Be Neat & Organized

1. (6 points) Complete the charts below, then graph $y = 2\sin(2x + \pi)$, and clearly mark all relevant information.

Amplitude	
Phase Shift	
Vertical Shift	

Key x -values					



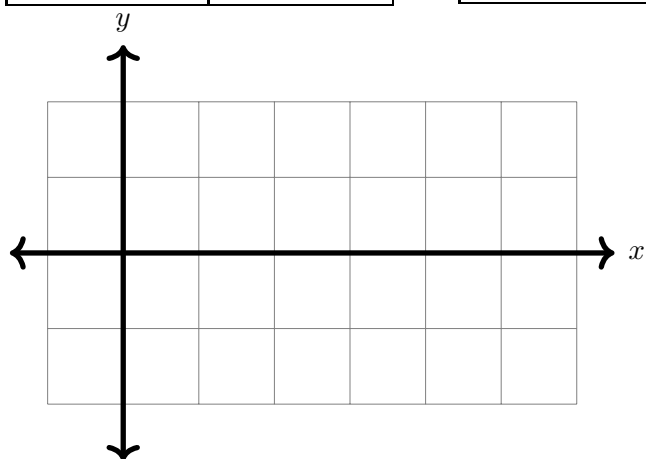
2. (3 points) Find x : $\cos(2x - 18^\circ) = \sin(x + 18)$

2. _____

3. (6 points) Complete the charts below, then graph $y = -2 \cos(4x - \pi) + 1$, and clearly mark all relevant information.

Amplitude	
Phase Shift	
Vertical Shift	

Key x -values					



4. (3 points) Find x : $\tan(3x + 5^\circ) = \cot(x - 25^\circ)$

4. _____

5. (3 points) Find x : $\sec(3x + 5^\circ) = \csc(5^\circ - x)$

5. _____

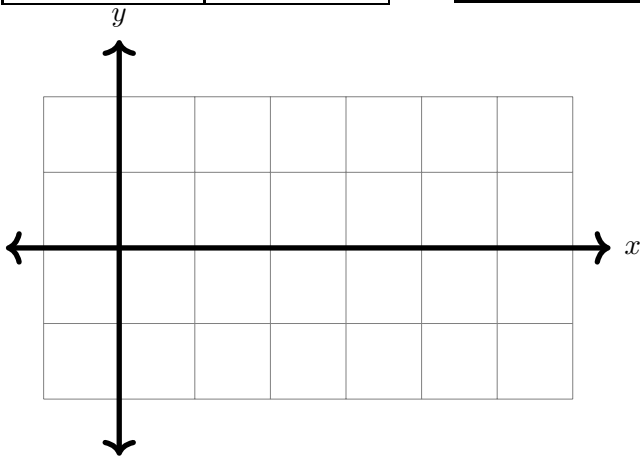
6. (3 points) Find x : $\sin(2x + 5^\circ) = \cos(5^\circ - 2x)$

6. _____

7. (6 points) Complete the charts below, then graph $y = \tan(\pi x) - 1$, and clearly mark all relevant information.

Amplitude	
Phase Shift	
Vertical Shift	

Key x -values			



8. (3 points) Find the exact value of $\sin(2x)$ given $\sec x = \frac{-3}{2}$ and $180^\circ < x < 270^\circ$.

8. _____

9. (3 points) Find the exact value of $\tan(2x)$ given $\cot x = -5$ and $90^\circ < x < 180^\circ$.

9. _____

10. Simplify the following:

(a) (2 points) $\sin\left(x - \frac{3\pi}{2}\right)$

(a) _____

(b) (2 points) $\cos\left(\frac{3\pi}{2} + x\right)$

(b) _____

(c) (2 points) $\tan(x - 2\pi)$

(c) _____

(d) (2 points) $\sin(-x + \pi)$

(d) _____

(e) (3 points) $\cos\left(x + \frac{\pi}{4}\right) + \sin\left(x + \frac{\pi}{4}\right)$

(e) _____

(f) (3 points) $\sin\left(\frac{\pi}{3} + x\right) - \sin\left(\frac{\pi}{3} - x\right)$

(f) _____
