Honors Precalculus Name_____

Take Home Quiz UNIT 3

For numbers 1 and 2, give an exact value for the angle. (1 point each)

1. Convert 145° into radians

2. Convert $\frac{7\pi}{8}$ to degrees.

Determine the reference angle for each of the following. (1 pt each) (leave answer in same unit as question)

3. 232°

4. $\frac{7\pi}{12}$

5. Given $\tan\theta = -\frac{5}{8}$ and $\cos\theta < 0$, find the following trigonometric ratios for θ.

Give exact answers. (1 point each)

a. $\sin\theta$

b. $\sec\theta$

c. $\cot\theta$

6. Find the exact value (do not use calculator) of the following on the unit circle. (1 point each)

a. $\sec\frac{11\pi}{6}$

b. $\tan\frac{4\pi}{3}$

c) $sec\frac{3\pi}{2}$

d. $sin\frac{5\pi}{4}$

7. Find the coterminal angle θ where $0 \le \theta < 2\pi$; when the angle is given in radian measure and $0° \le \theta < 360°$ in degree measure. (1 point each)

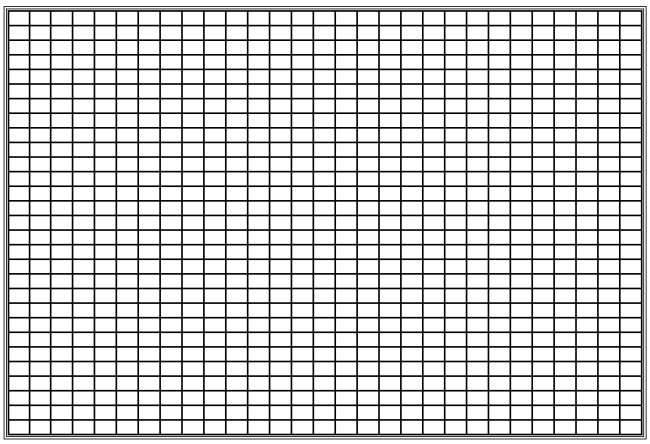
a. $\frac{5\pi}{2}$

b. 3458°

8. $f(x) = -3\cos(x - \frac{\pi}{4}) - 2$ (5 pts)

Graph one cycle of the function. LABEL

Identify each of the following



Amplitude:

Period:

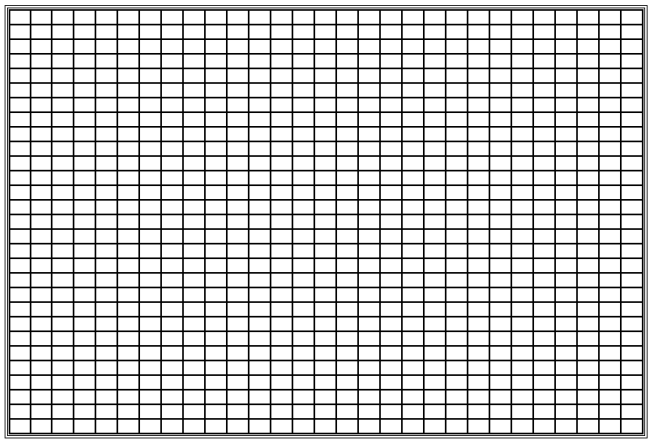
Phase Shift:

Vertical Shift:

9. $f(x) = 4\csc\frac{1}{4}(x - \frac{\pi}{3}) + 3$ (6 pts)

Graph one cycle of the function. LABEL

Identify each of the following



Amplitude:

Period:

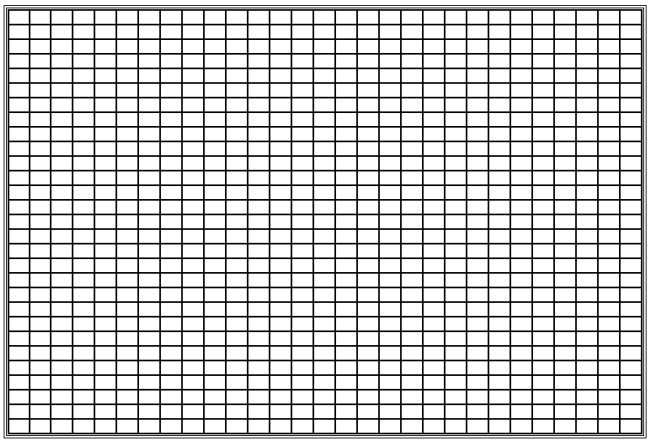
Phase Shift:

Vertical Shift:

Equation of Asymptotes:

10. $f(x) = 3\cot 2\left(x - \frac{\pi}{3}\right) - 1$ (6 points)

Graph one cycle of the function. LABEL



Rise/Fall:

Period:

Phase Shift:

Vertical Shift:

Equation of the aysmtotes:

11) Identify the amplitude, period, phase shift, and vertical shift of the function: **(2 pts)**

$$y = \frac{1}{3}\sin(4x - \frac{\pi}{2}) - 1$$

Amplitude:

Period:

Phase shift:

Vertical Shift:

11. Write a **cosine function** given: (3 points)

Amplitude: 4

Period: $\frac{3\pi}{2}$

Phase shift: $\frac{\pi}{6}$ right

Vertical shift is down 3.

FUNCTION:

12. Identify each of the following from the given graph of a **sine function**. (3 points)

Amplitude:

Period:

Phase Shift: