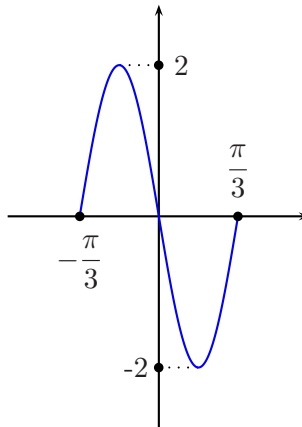


Quiz 3
Math 30

1. A complete cycle of a sinusoidal curve is shown below:



- (a) Find the phase shift.
(b) Find the period.
(c) Find the amplitude.
(d) Write an equation for this curve.
2. Graph two complete cycles of the following sinusoidal curve:

$$y = -\sin\left(2x - \frac{\pi}{2}\right)$$

3. Verify the following identity:

$$\frac{\csc^2 \theta}{1 + \tan^2 \theta} = \cot^2 \theta$$

4. Solve for θ . List all solutions:

$$2 \cos^2 \theta + \cos \theta = 1$$

5. Solve for x , where $0 \leq x \leq 2\pi$:

$$\sin 2x = \sqrt{3} \cos 2x$$

6. Find:

(a) $\cos(\tan^{-1}(-\sqrt{3}))$

(b) $\sin(\sin^{-1}(.7))$

(c) $\sin^{-1}\left(\sin \frac{11\pi}{8}\right)$