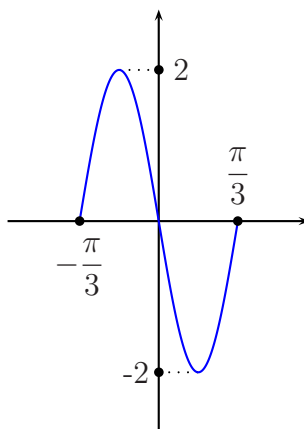# Eighth Quiz for Math 30, section 6432

Directions: You should fully justify your answers. Do all your work on separate paper, and make sure to *print* your name in the first sheet and staple all the sheets together. **Unstapled, loose pieces of paper will not be graded.** This quiz is due Wednesday May 7, at 6:00 PM.

1. Find all six trigonometric numbers of the angle θ if
   (a) $\cos\theta = 1/2$ and θ is in the fourth quadrant.
   (b) $\sin\theta = \dfrac{1}{3}$ and $\dfrac{\pi}{2} \le \theta \le \pi$
   (c) $\tan\theta = \sqrt{3}$ and θ is on the third quadrant.

2. 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.

3. Graph three complete cycles of each of the following functions:
   (a) $y = 3\sin(2x + \pi)$
   (b) $y = -\sin\left(3x - \dfrac{\pi}{2}\right)$
   (c) $y = \dfrac{1}{2}\cos 3x$