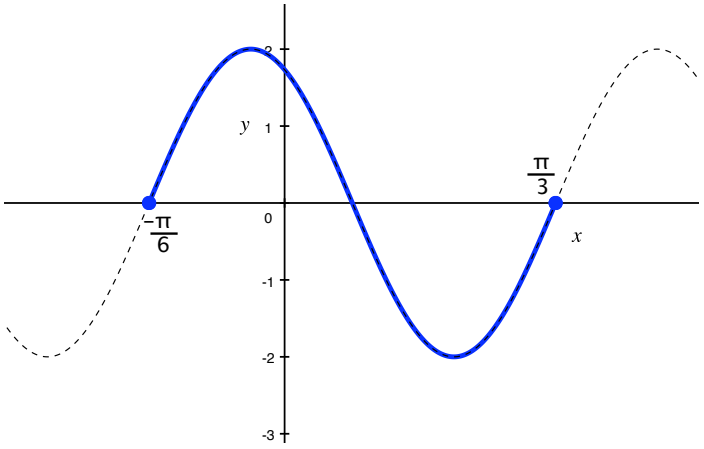
Math 120 Quiz #4
February 5, 2008

Name: _____

1. The graph of one complete period of a sine or cosine curve is given.



(a) (3 pts.) Find the amplitude, period, and phase shift.

(b) (3 pts.) Write an equation that represents the curve in the form

$$y = a \sin k(x - b) + c \quad \text{or} \quad y = a \cos k(x - b) + c.$$

2. $f(x) = 50 + 20\cos(1000\pi t)$

(a) (2 pts.) What is the period of $f(x)$?

(b) (2 pts.) What are the maximum and minimum values of $f(x)$?

Bonus Question (1 pt. extra credit):
Below is a figure displaying quadrant I of the unit circle. The points on the figure are the points for special values of t.

Label the points with:

- **Exact** coordinates for each point in the figure
- The value of t that determines each terminal point such that $0 \leq t \leq \frac{\pi}{2}$.