

Writing Assignment 3: Graphs
Due: Monday, September 22, 2008

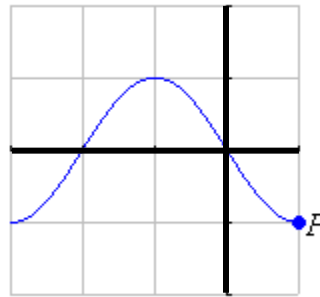
Name _____
 Section: 11:00

(33 points)

1. Report the period and amplitude for each. Find a possible formula.

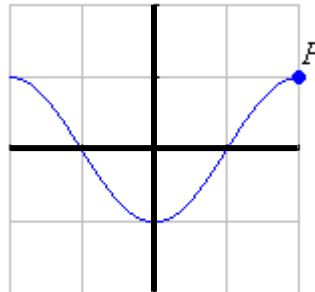
a. The point P has coordinates $(\frac{\pi}{10}, -500)$

- (1) period: _____
- (1) amplitude: _____
- (5) equation: _____



b. The point P has coordinates $(30\pi, 20)$

- (1) period: _____
- (1) amplitude: _____
- (5) equation: _____



2. Report the period, amplitude, and midline for each. Find a possible formula.

a. A rabbit population in a national park rises and falls each year. It is at its minimum of 4000 rabbits in January. By July, as the weather warms up and food grows more abundant, the population doubles in size. By the following January, the population again falls to 4000 rabbits, completing the annual cycle. Model $R = f(t)$ with a trig function, where R is the size of the rabbit population as a function of t , the number of months since January.

- (1) period: _____
- (1) amplitude: _____
- (1) midline: $y =$ _____
- (5) equation: _____

- (1) b. period: _____
- (1) amplitude: _____
- (1) midline: $y =$ _____
- (8) equation: _____

