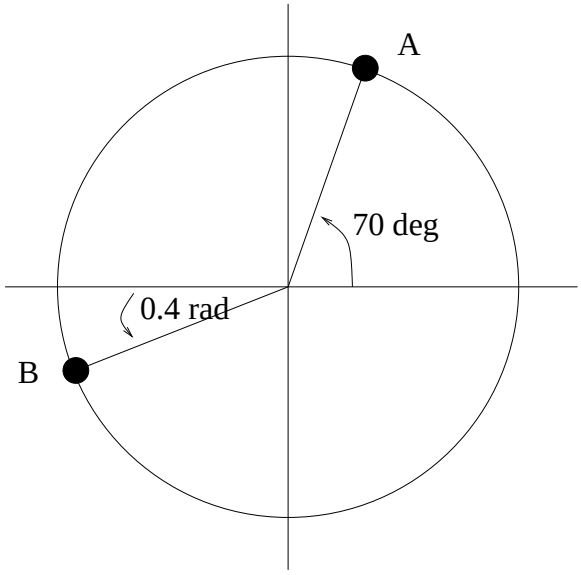
Math 120
9 November 2000
Quiz #6 (20 points)

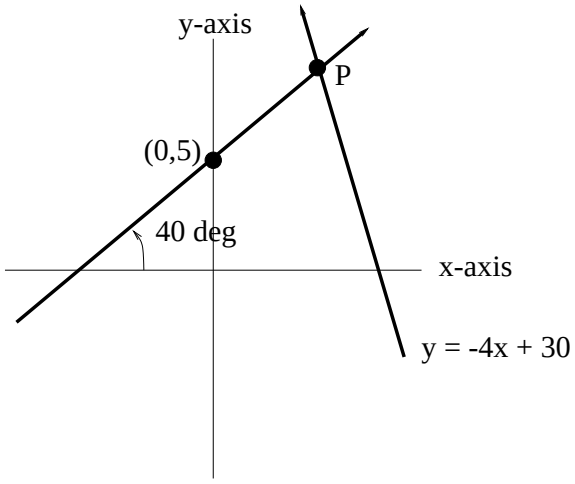
Name _____
Section _____
TA: _____

Instructions: You have 25 minutes for this quiz. You **MUST** show work for credit. No credit for answers only. If in doubt, ask for clarification. NO GRAPHING CALCULATORS ALLOWED. Use 2 decimal places of accuracy.

1. (4pts) In the figure, the circle has radius 8 feet. Calculate the coordinates of the points A and B in the picture.

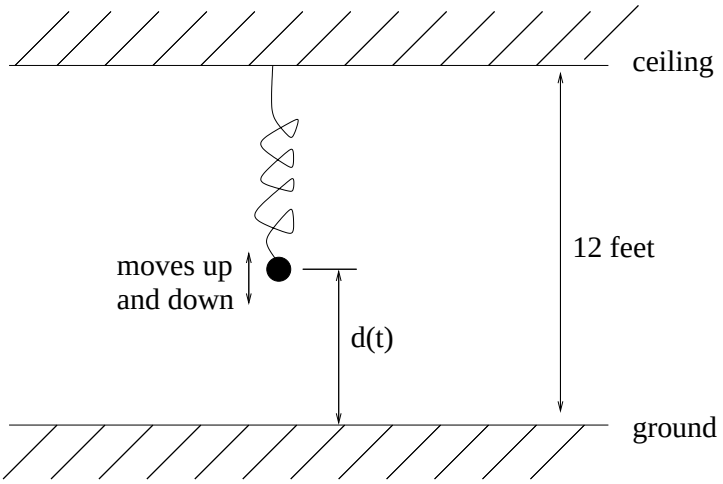


2. (5pts) In the figure, find the coordinates of the point P where the two lines intersect.



3. (11pts) An object attached to a spring is suspended from the ceiling and is moving up and down. Assume the height (feet) of the object above the ground at time t seconds is given by the function:

$$y = d(t) = 2\sin(4\pi t - \frac{5\pi}{4}) + 5$$



(a) (5pts) Find the amplitude, period, phase shift and mean for the function $d(t)$.

(b) (6pts) Here is a graph of $y = d(t)$ on the domain $0 \leq t \leq 2$. Find the coordinates of the four points ("dots") in this picture.