

Name: _____

Section: _____

MATH 120A

QUIZ 8

March 14, 2002

You may use a scientific calculator to complete this quiz. No notes please.

1. (6 points) An object moves in the xy -plane, with coordinates given by the parametric equations:

$$x(t) = 2 + 3(1 - t), \quad y(t) = 1 + 2(1 - t), \quad 0 \leq t \leq 1.$$

- (a) Find the starting and ending points of the path.
- (b) Give a verbal description of the "shape" of the path (is it part of a circle? a line? a parabola? etc.). Justify your answer.

2. (4 points) An object moves in a straight line in the xy -plane starting at the point $(7,22)$ and ending at the point $(-10,-5)$. The object moves with a constant speed and the trip takes T seconds. The object's location is given by the equations

$$x(t) = 7 - 1.107t, \quad y(t) = 22 + v_y t, \quad 0 \leq t \leq T.$$

Compute T and v_y .