

Figure 1:

Quiz #12

- 1. (4 points) Sketch the curve given in polar coordinates by the equation $r = \sin(3\theta)$ into the coordinate system above.
- 2. (6 points) Consider the curve given by x(t) = 3 5t, $y(t) = t^2 t + 7$.
 - (a) At which points (if any) has the curve a horizontal tangent line ?
 - (b) At which points (if any) has the curve a vertical tangent line ?
 - (c) For which value of t has the tangent line to the curve at the point (x(t), y(t)) slope equal to 2 ?