

**Math 231 Section A1**  
**Quiz 12**  
**July 31, 2007**

Name: \_\_\_\_\_

1) (6 points) Give parametric equations for the conic section

$$\frac{(x - 2)^2}{5} - \frac{(y + 1)^2}{9} = 1.$$

2) (6 points) Find the set of all points equidistant from  $x = 5$  and  $(3, 1)$ .

3) (8 points) Find the polar equation of the conic section with directrix  $y = 2$ , a focus at the origin, and eccentricity  $.8$ .

Extra Credit) (5 points) Determine all points on the curve from Question 2 where the slope of the tangent line is  $-1$ .