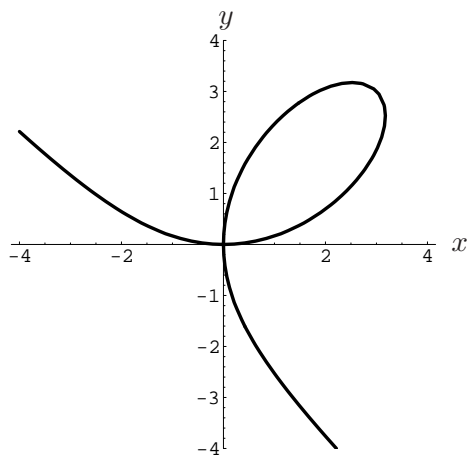


4. (12 points) An example of Descartes' folium, shown in the picture below, is given by $x^3 + y^3 = 6xy$.



- (a) Show that the point $(3,3)$ is on the graph.
- (b) Find the equation of the tangent to the graph at the point $(3,3)$. Show your work.
- (c) For what value(s) of x (if any) will the tangent to this curve be horizontal? [You do not need to solve for both x and y —just show x in terms of y .] Show your work.