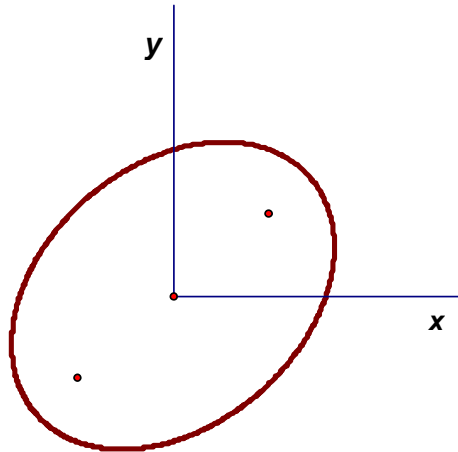


- Find an equation of the tangent line to the curve $x^5 - xy - 3 \sin(xy) = 1$ at the point $(1, 0)$.
- The graph of the curve $x^2 - xy + y^2 = 1$ is the ellipse shown below.



- Find a general expression for the slope of the tangent line to the ellipse at the point (x, y) .
 - Find equations of the tangent lines to the ellipse at the y -intercepts.
 - Find equations of the horizontal and vertical tangent lines to the ellipse.
 - Find equations of the tangent lines to the ellipse that pass through the point $(0, 2)$.
- The curve (lemniscate) whose equation is given by $2(x^2 + y^2)^2 = 25(x^2 - y^2)$ is graphed below. Find the slopes of the two tangent lines to the curve at the origin.

