

Let $\vec{r} = t \langle \cos t, \sin t \rangle$ & $t_0 = \frac{8\pi}{3}$. HW 16

(In polar coordinates, $r = \theta = t$.)

① Find a parametrization of the osculating circle for the given curve at $t = t_0$.

② Plot the given curve (which is a spiral) for $0 \leq t \leq 4\pi$ together with the circle from ① so that the circle is seen to kiss the spiral. Sketch by hand using t, x, y tables of values on print out a computer plot.