

Math 10460 - Honors Mathematics II

Homework 2a - Due Wednesday, January 27

(1) Exercise 12.17 from the text.

I recommend using $\gamma(\theta) = \theta - \frac{\pi}{4}$ and $\frac{\pi}{4} < \theta < \frac{5\pi}{4}$ to graph the equation. The γ as given will work, but you have to use $-\frac{3\pi}{4} < \theta < \frac{\pi}{4}$ in that case.

Hint: Draw a triangle using the graph of the equation which involves the angle γ , and then use the Law of Sines on that triangle. You will have to do this separately for $\frac{\pi}{4} < \theta < \pi$ and $\pi < \theta < \frac{5\pi}{4}$. It should be clear that $\gamma = \frac{3\pi}{4}$ when $\theta = \pi$.