

# Math 10460 - Honors Mathematics II

## Homework 1c - Due Wednesday, January 20

- (9) Exercise 12.18
- (10) Exercise 12.17 from the text. (*Not due this week, delayed until next week. Will be problem 1 on Homework 2a.*)

I recommend using  $\gamma(\theta) = \theta - \frac{\pi}{4}$  and  $\frac{\pi}{4} < \theta < \frac{3\pi}{4}$  to graph the equation. The  $\gamma$  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  $\gamma$ , and then use the Law of Sines on that triangle. You will have to do this separately for  $\frac{\pi}{4} < \theta < \pi$  and  $\pi < \theta < \frac{3\pi}{4}$ . It should be clear that  $\gamma = \frac{3\pi}{4}$  when  $\theta = \pi$ .