## Exercise2.38

## Luqing Ye\*

December 23, 2014

**Exercise.** Let R be the region between the (polar) graphs of  $r=f_1(\theta)$  and  $r=f_2(\theta)$ , where  $\alpha \leq \theta \leq b$ . Find a parameterization for R.

Solve.  $([tf_1(\theta)+(1-t)f_2(\theta)]\cos\theta,[tf_1(\theta)+(1-t)f_2(\theta)]\sin\theta),$  where  $\theta\in[a,b],t\in[0,1].$ 

 $<sup>\</sup>hbox{$^*$An undergraduate at $Hangzhou Normal University,} Email:yeluqing mathematics@gmail.com$