**HW#1**

**Due: September 8, 2009**

Calculate the water fractional flow ( $f\_{w}$) as a function of water saturation ($S\_{w}$) and plot $f\_{w}$ versus $S\_{w}$ for the following fluid system:

 $k\_{rw}^{\*}=0.1$

 $k\_{row}^{\*}=0.7$

 $nw=1.5$

 $no=2.5$

 $S\_{orw}=0.30$

 $S\_{wr}=0.25$

 $μ\_{w}=0.6 cp$

 $μ\_{o}=2.4 cp$