1. Consider the Dirichlet Problem where the temperature within a rectangular plate *R* is steady-state and does not change with respect to time. Find the temperature *u(x,y)* within the plate for the boundary conditions below and where 

2. Solve the Dirichlet problem for steady-state (constant with respect to time) temperature

within the wedge shown below. Find the temperature within the wedge. The temperature along the arc is 





Hint: For the solution in which is the radius, the coefficient for one of the two independent solutions must be zero, since the solution must be finite (can’t go to infinity) when =0.