

In these coordinates, the surface of the (first) cylinder is given by $\xi = 1$. The boundary conditions become

$$T(\xi = 1 -, \eta) = T(\xi = 1 +, \eta)$$
, (3)

$$\frac{\partial T}{\partial \xi}\Big|_{\xi=1-} = \alpha^{-1} \frac{\partial T}{\partial n}\Big|_{\xi=1+}.$$
 (4)

It is easily verified that inside the cylinder, $\xi \ge 1$, the solution is

$$T(\xi,\eta) = -\frac{q}{\alpha} \ln n \, dn \ge$$

$$T(\xi,\eta) = -$$



