1. Write a program to calculate the charge distribution on a straight thin wire of length $l$ and radius $a (<< l)$, held at a potential 1V as shown above using the method of moments. Show a plot of the charge distribution for the case where $l = 1$ m and $a = 1$ mm.

Refer to: *Elements of Engineering Electromagnetics*, N. N. Rao, Prentice Hall,

