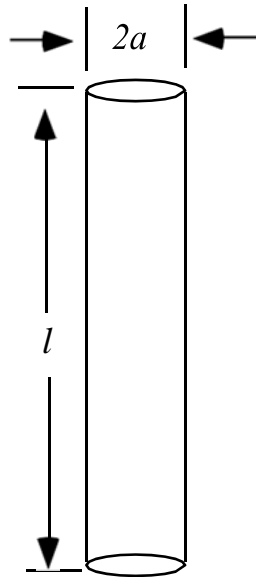


**ECE 546    HOMEWORK No 2 - Due Thursday, February 15, 2018**



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

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

- a. Second Edition, 1987, pp. 229-233
- b. Fourth Edition, 1994, pp. 247-251
- c. Sixth Edition, 2004, pp. 739-742