EEL 3472
HOMEWORK #3
DUE FRIDAY, JANUARY 30, 2009

1. Ulaby, page 101. Problem 2.10

2. Ulaby, Page 101, Problem 2.12

3. A voltage generator with $v_g(t) = A\sin(10^{10}t)$ and internal impedance 10 Ohms is connected to a lossless transmission line characterized by $L' = 10^{-6}\ H/m$ and $C' = 10^{-10}\ F/m$. If the load impedance is 100 Ohms and the line is 10 meters long, find:

   (a) The phasor voltage source $\tilde{V}_g$
   (b) The wave length λ on the line
   (c) The reflection coefficient at the load
   (d) The input impedance Z_{in} to the line
   (e) The phasor input voltage to the line $\tilde{V}_i$