Name
Name

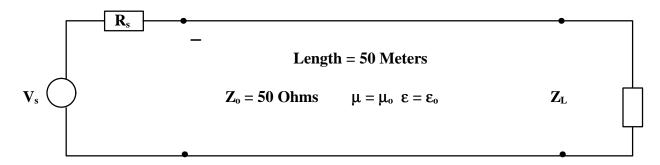
## Fields and Waves I ECSE-2100 Spring 1999

Section

**Preparation Assignment** 

## Due 12 April (2 points) Lesson 4.2

Reading PWN 7.2



Assume that the DC source voltage is 10 volts, the source impedance is 50 Ohms and the load impedance is infinite. Assume that the source is connected to the line at t = 0. What is the voltage observed at the input and output of the line at t=0? What is the voltage observed at the input and output of the line at  $t \to \infty$ ?

## **Due 14 April (2 points)** Lesson 5.2

Reading PWN 5.5, 5.6, 5.8—6.2

At what speed does an FM radio wave propagate through dry soil ( $\varepsilon_r = 2.6$ )? If the magnetic field **H** of a plane wave propagating in the +y direction points in the +x direction, what direction does **E** point in? If the wave is propagating in air and the magnitude of **H** is 3 A/m, what is the magnitude of **E**?

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## **16 April Class Time**

Open shop to work on Homework #7, which is due at 5pm.