# Preparation Assignments

### Due Monday, November 25

Determine the phasor and time domain electric field expressions for a 1.5 GHz plane wave propagating in the z-direction through dry soil. The wave is polarized in the x-direction.

How far does the wave propagate for 3dB attenuation?

#### Due Thursday, November 28

How many pounds of turkey did the F&W I Fall 2002 class consume today?

## Due Monday, December 2

An *x*-propagation *z*-polarized plane wave propagating through air is normally incident on glass. Determine the phasor form of the total electric field in air.

#### Due Wednesday, December 4

For Monday's geometry, what percentage of power is transferred into the glass?

If the wave is perpendicularly polarized with a 45° angle of incidence, what percentage of power is transferred into the glass?

If the wave is parallelly polarized with a 45° angle of incidence, what percentage of power is transferred into the glass?