**PREFLIGHTS   LESSON 19 – REFLECTION AND TRANSMISSION AT
                   NORMAL/OBLIQUE INCIDENCE**

LEARNING OBJECTIVES:
1. **Describe the process for determining what occurs when a plane wave encounters an interface.**
2. **Solve for the reflected and transmitted waves when a plane wave encounters an interface.**

1) Phew! The math in that section got kind of rough. I will not expect you to derive the equations for reflected and transmitted waves, particularly in the case of oblique incidence. But I do expect you to qualitatively describe those derivations. So how about doing that – giving me a qualitative description of the two or three main physics (as opposed to algebraic) steps involved in solving for the reflected and transmitted waves at an interface.

2) Suppose that you followed those steps above to solve for the reflected and transmitted waves, given an incident wave. How could you double-check your answers to make sure that they physically make sense?

3) *Note: This is a review question from Chapter 8.*
Assume the current in the solenoid shown decreases at a steady rate. Which way will electromagnetic energy flow? Give a direction such as left, right, radially inward, radially outward, etc. Also, you can assume $B = 0$ outside of the solenoid.
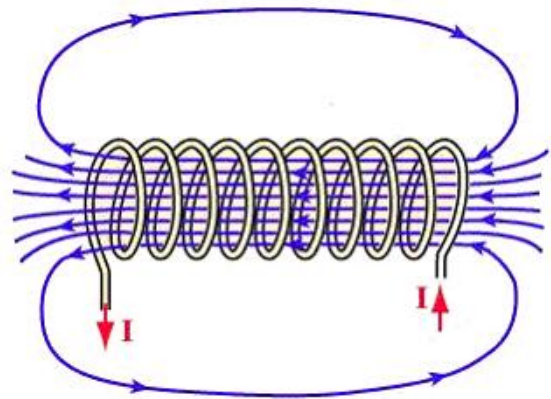
4) What did you find difficult or confusing in the pre-class work? If nothing was difficult or confusing, tell me what you found most interesting. Please be as specific as possible.

5) Document whatever help you received on the preclass work.