## ELEC 306 Problem Set 12 Due: December 5, 2014

## **Homework Problems.**

Work the following problem in Sadiku:

**H12.1** 13.21

H12.2 (a) Show that the Friis transmission equation can be written as

$$\frac{P_r}{P_t} = \frac{A_{er}A_{et}}{\lambda^2 r^2}$$

(b) Two half-wave dipole antennas are operated at 100 MHz and separated by 1 km. If 80 W is transmitted by one, how much power is received by the other?

Real Problems.

None this week.