Homework Set #2

(1) Assume 500 nm light can be represented by a plane wave in a region of space. It's propagation direction is given by a vector lying in the xy-plane, 30° below the x-axis. At $t = 0$, at the origin, it is observed that the electric field magnitude is 1800 V/m. Write a possible real expression for the magnetic field component of the light in that region of space.

(2) Text 2.22.

(3) Text 2.26

(4) Text 2.29

(5) Text 2.33

(6) Text 2.34